

TABLE III-2.—Production of major chemicals in the U.S.S.R., 1955 and 1959–63, plan for 1965, and United States, 1963

(Unclassified)

Commodity	Unit	U.S.S.R.							United States, 1963
		1955	1959	1960	1961	1962	1963	1965 (plan)	
Sulfuric acid (100 percent).....	Thousand metric tons.	3,796	5,062	5,398	5,718	6,132	6,885	<sup>1</sup> 9,000	12,993
Soda ash (95 percent).....	do.....	1,437	1,728	1,887	2,115	2,332	2,545	-----	<sup>2</sup> 4,247
Caustic soda (92 percent).....	do.....	563	757	765	897	901	1,049	-----	<sup>2</sup> 1,168
Mineral fertilizers <sup>3</sup> .....	do.....	2,299	3,064	3,260	3,593	4,078	4,646	<sup>4</sup> 7,835	8,827
Plastics.....	do.....	177	293	332	404	473	589	<sup>1</sup> 920	4,053
Rubber tires.....	Thousand units.....	10,100	15,480	17,225	18,996	20,846	22,463	<sup>4</sup> 26,000	142,941
Chemical fiber.....	Thousand metric tons.	110.5	180	211	250	277	308	416	1,126

<sup>1</sup> Figures represent a downward revisions of goals under original 7-year plan for 1959–65.<sup>2</sup> In terms of 100 percent.<sup>3</sup> In terms of pure nutrient, production between 1 July 1962 and 30 June 1963.<sup>4</sup> Estimated plan includes a small amount of trace fertilizers.

## NEW SOVIET CHEMICAL PROGRAM

A significant development affecting the Soviet chemical industry in 1963 was the announcement at the December plenum of the Central Committee of the Communist Party of a new plan for rapid development of the industry in 1964–70. The plan called for production of the most important branches to increase by 200 to 230 percent, with the proportion of chemical output in the gross value of all industrial output to double by 1970. Primary attention was to be devoted to raising output of agricultural chemicals and synthetic materials. To support the program of "chemicalization" of the economy, a direct investment of about 25 billion rubles was planned in the chemical industry, with an additional 17 billion rubles to be invested in allied industries to support the chemical program and to assure efficient use of fertilizers and pesticides in agriculture. While events following the shift in Soviet leadership in 1964 suggest that the chemical program will be reduced somewhat, there is good reason to expect that Soviet planners will accord a high priority to development of the chemical industry for some years to come.

Required  
annual  
increase,  
1964–65

(%)

11.2

8.4

12.5

8.8

8.9

7.1

29.7

16.1

4.0

1.5

peat, shale,

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TABLE III-3.—Production of consumer goods in the U.S.S.R., 1955 and 1959-63, and in the United States, 1963<sup>1</sup>

	Unit	1955	1959	1960	1961	1962	1963	Original 1963 plan	Revised 1963 plan	United States, 1963 (pre- liminary)
Fabrica, total.....	Million square meters.....	5,230	6,178	6,467	6,504	6,655	6,849	8,222	7,414	12,401
Cotton.....	do.....	4,227	4,615	4,838	4,875	4,914	5,069	5,852	5,596	8,881
Wool.....	do.....	316	415	439	464	489	471	640	600	408
Rayon, synthetic and silk.....	do.....	415	683	675	682	787	800	1,233	1,200	1,404
Linen.....	do.....	372	485	516	493	485	509	597	597	600
Leather footwear.....	Million pairs.....	271	390	410	443	456	463	515	477	801
Sewn garments.....	Million rubles (in wholesale prices).....	( <sup>2</sup> )	8,108	8,739	9,329	9,688	9,494	11,870	11,870	11,870
Knit outerwear.....	Million pieces.....	85	104	112	118	125	133	160	165	165
Knit underwear.....	do.....	846	439	472	488	519	554	780	780	780
Hosiery.....	Million pairs.....	772	928	904	1,000	1,033	1,122	1,260	1,260	1,260
Sewing machines.....	Thousand.....	1,611	2,941	2,098	2,292	2,941	2,802	4,550	4,550	4,550
Refrigerators.....	do.....	151	426	630	688	838	911	1,450	1,450	1,450
Washing machines.....	do.....	87	648	896	1,298	1,797	2,252	2,570	2,570	2,570
Radios.....	do.....	2,549	4,035	4,165	4,228	4,251	4,862	7,000	7,000	7,000
Television sets.....	do.....	496	1,277	1,726	1,949	2,198	2,473	2,600	2,600	2,600

<sup>1</sup> Principal sources: Statistical Abstract of the United States, 1964. Official Soviet sources (U.S.S.R. Central Statistical Administration): Promyshlennost' S.S.S.R., Moscow 1964.

<sup>2</sup> Not available.

<sup>3</sup> Negligible.

<sup>4</sup> Excludes Alaska. Includes slippers; excludes rubber footwear and sneakers.

<sup>5</sup> Figures are for retail sales.

<sup>6</sup> Includes 7,000,000 auto radios and 1,500,000 radio-phonograph combinations.

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TABLE III-4.—*Production of selected metals in the U.S.S.R., 1955, 1959-63, and 1965 plan, and in the United States, 1963*

[In thousands of metric tons]

Commodity	U.S.S.R. <sup>1</sup>							United States, 1963
	1955	1959	1960	1961	1962	1963	1965 plan	
Crude steel.....	45,272	59,972	65,294	70,755	76,807	80,231	90,100	99,120
Aluminum (primary).....	435	575	650	725	800	875	1,450	2,557
Copper (refined).....	377	480	490	530	590	640	772	1,723
Lead (primary).....	258	306	324	342	354	355	433	578
Tin (primary and secondary).....	10	12	13	14	15	15	16	16
Zinc (refined primary).....	222	344	364	377	403	419	504	564

<sup>1</sup> Data for crude steel are official Soviet data; all other data are estimates.<sup>2</sup> Estimated data.<sup>3</sup> Including refined primary zinc and secondary zinc refined at primary refineries.TABLE III-5.—*Production of selected fuels in the U.S.S.R., 1955 and 1959-63, and in the United States, 1963*

Commodity	Unit of measure	1955	1959	1960	1961	1962	1963	United States, 1963
Coal.....	Million metric tons.....	291.3	505.6	513.2	510.5	517.4	531.7	432.9
Crude oil.....	do.....	70.8	129.6	147.9	165.1	185.2	205.1	272.0
Natural gas.....	Billion cubic meters.....	9.0	35.4	45.3	59.0	73.5	89.8	417.8

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TABLE III-6.—U.S.S.R.: *Indexes of civilian industrial production, 1955 and 1959-63\**

	1955 value— Added weights (percent)	1955 = 100					
		1955	1959	1960	1961	1962	1963
Industrial materials.....	52.3	100	144.3	163.2	161.4	172.1	182.9
Electric power.....	3.3	100	155.7	171.8	192.6	216.6	241.6
Coal.....	9.3	100	130.4	133.4	133.4	130.0	130.9
Petroleum products and natural gas.....	2.4	100	184.8	210.5	230.4	268.3	298.1
Ferrous metals.....	6.0	100	133.1	144.2	156.4	167.9	178.6
Nonferrous metals.....	4.8	100	129.2	142.0	154.0	168.0	180.8
Forest products.....	14.2	100	124.4	116.8	114.2	114.7	117.2
Paper products.....	8	100	130.7	130.5	144.6	154.7	164.4
Construction materials.....	6.8	100	199.5	229.7	233.6	273.9	292.9
Chemicals.....	4.7	100	154.5	168.6	182.0	198.1	219.2
Civilian machinery, including electronics.....	22.2	100	159.5	176.0	196.3	223.4	247.1
Machinery, excluding electronics.....	19.5	100	150.7	163.0	181.0	200.2	216.1
Electronics.....	2.7	100	222.0	268.8	322.0	389.0	468.8
Nondurable consumer goods.....	25.5	100	133.2	138.9	145.8	152.5	155.5
Soft goods.....	10.2	100	131.3	139.0	143.5	149.3	152.5
Processed foods.....	9.3	100	136.4	138.8	149.9	153.0	160.6
Aggregate civilian industrial production.....	100.0	100	144.6	164.6	166.6	178.5	190.2

NOTE.—For methodology, see "Dimensions of Soviet Economic Power," pp. 119-136.

\*Machinery uniquely military in character (e.g., munitions) are excluded from the index shown in the table. If military machinery were included the slowdown in industrial growth between the 2 periods 1955-59 and 1960-63 would probably be reinforced.

TABLE III-7.—U.S.S.R.: *Annual rates of growth in industrial production, 1959-63*  
(In percent)

	1959	1960	1961	1962	1963
Industrial materials.....	9.7	6.2	5.4	6.6	6.3
Electric power.....	12.4	10.3	12.1	12.5	12.0
Coal.....	2.9	2.3	0.0	2.0	2.9
Petroleum products and natural gas.....	14.5	13.9	12.3	13.5	11.1
Ferrous metals.....	9.1	8.3	8.5	7.4	5.1
Nonferrous metals.....	9.8	9.9	8.4	9.1	7.6
Forest products.....	7.0	-4.5	-3.9	5	2.2
Paper products.....	4.5	4.5	5.9	7.0	6.2
Construction materials.....	17.8	15.1	10.4	8.8	6.2
Chemicals.....	11.7	9.1	8.0	6.8	10.6
Civilian machinery, including electronics.....	7.0	10.3	12.7	12.7	10.6
Machinery, excluding electronics.....	4.7	8.1	11.0	10.6	7.9
Electronics.....	19.6	21.1	19.8	20.8	20.5
Nondurable consumer goods.....	7.3	4.3	5.0	4.6	2.0
Soft goods.....	6.7	5.8	3.2	4.1	2.2
Processed foods.....	8.2	1.8	8.0	8.4	1.7
Aggregate civilian industrial production.....	8.5	6.8	7.1	7.8	6.6

NOTE.—For methodology, see "Dimensions of Soviet Economic Power," pp. 119-136.

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8. Significant trends in individual branches of industry since 1960 include a marked decline in the rate of growth of investment in ferrous metallurgy. For consumer goods and construction materials the absolute level of investment in 1963 remained below the level attained in 1960. At the same time, the energy industries experienced an increasing rate of growth in investment.

9. The rate of growth of investment in transportation and communications has slowed since 1960. In railroad investment, heavy emphasis has been placed on the modernization of existing facilities rather than further expansion of the rail system. Transportation investment now includes investment in pipeline construction.

TABLE IV-1.—U.S.S.R.: Gross fixed investment, by function, 1955 and 1959-63<sup>1</sup>(In millions of rubles)<sup>2</sup>

	1955	1959	1960	1961	1962	1963
Total investment.....	19,931	33,966	36,705	38,271	40,150	42,214
Construction.....	12,831	22,291	24,240	24,842	24,652	25,520
Equipment.....	5,532	9,501	10,069	11,286	12,505	13,595
Other capital outlays.....	1,568	2,194	2,406	2,443	2,793	3,099
Productive investment.....	13,509	20,710	22,608	23,768	24,800	27,433
Of which:						
Construction.....	7,413	10,765	12,064	12,721	13,473	14,509
Equipment.....	4,784	8,168	8,498	9,230	10,328	10,803
Nonproductive investment.....	6,332	13,276	14,197	14,503	14,650	14,781
By function:						
Of which:						
Construction.....	5,418	11,526	12,176	11,821	11,879	11,011
Equipment.....	748	1,803	1,601	2,054	2,447	2,792
By use:						
Housing.....	3,806	8,319	8,275	7,670	7,729	7,714
Services.....	2,526	4,957	5,922	6,824	6,921	7,067

<sup>1</sup> Based on revised Soviet investment series appearing in *Narodnoye khozyaystvo SSSR v 1963 godu*, pp. 452 and 459.

<sup>2</sup> Expressed in terms of new rubles at 1955 prices.

<sup>3</sup> Estimated.

TABLE IV-2.—U.S.S.R.: Index of gross fixed investment, by function, 1955 and 1959-63

(In Percent (1955=100))

	1955	1959	1960	1961	1962	1963
Total investment.....	100	171	184	192	201	212
Construction.....	100	174	189	191	194	199
Equipment.....	100	172	183	204	226	246
Other capital outlays.....	100	140	151	156	178	198
Productive investment.....	100	162	166	175	183	202
Of which:						
Construction.....	100	145	163	172	182	196
Equipment.....	100	171	178	193	210	226
Nonproductive investment.....	100	210	224	229	231	233
By function:						
Of which:						
Construction.....	100	213	225	218	210	203
Equipment.....	100	174	214	275	327	373
By use:						
Housing.....	100	219	217	207	203	203
Services.....	100	196	234	262	274	280

<sup>1</sup> Based on table IV-1, which contains estimated data for 1959 and 1961.

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industry since 1960  
investment in ferrous  
materials the  
level attained  
experienced an

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vestment, heavy  
existing facilities  
Transportation  
ruction.

1955 and 1959-63<sup>1</sup>

	1962	1963
71	40,180	42,214
42	24,882	25,520
46	12,805	12,695
43	2,793	2,099
48	24,800	27,433
21	12,473	14,506
30	10,058	10,803
43	14,650	14,781
21	11,879	11,011
54	2,447	2,792
79	7,729	7,714
24	6,921	7,067

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uction, 1955 and

	1962	1963
2	201	212
1	194	199
4	226	246
6	178	188
5	188	202
2	182	196
3	210	226
9	221	233
9	210	203
5	327	373
7	303	203
2	374	280

TABLE IV-3.—U.S.S.R.: Annual rates of growth of gross fixed investment, by function, 1959-63<sup>1</sup>

(In percent)

	1959	1960	1961	1962	1963
Total investment.....	12.2	8.0	4.8	4.9	8.1
Construction.....	18.3	8.7	1.2	1.3	2.7
Equipment.....	8.8	6.3	11.8	10.8	8.7
Other capital outlays.....	13.0	7.8	3.3	14.3	11.0
Productive investment.....	13.9	8.7	5.6	7.2	7.6
Of which:					
Construction.....	17.0	12.1	5.4	5.9	7.7
Equipment.....	7.5	3.7	9.6	9.0	7.4
Nonproductive investment.....	12.2	6.9	2.2	1.0	0.9
By function:					
Of which:					
Construction.....	13.7	8.6	-2.9	-3.7	-3.2
Equipment.....	17.6	22.0	29.3	19.1	14.1
By use:					
Housing.....	10.4	-0.5	-4.8	-1.9	-0.2
Services.....	15.3	10.5	11.9	4.5	2.1

<sup>1</sup> Based on table IV-1, which contains estimated data for 1959 and 1961.

TABLE IV-4.—U.S.S.R.: Productive gross fixed investment, by sector, 1955 and 1959-63<sup>1</sup>

(In millions of rubles)<sup>2</sup>

	1955 <sup>3</sup>	1959 <sup>3</sup>	1960	1961 <sup>3</sup>	1962	1963
Productive investment, all sectors.....	13,599	20,710	22,508	23,768	25,509	27,433
Industry, total.....	7,009	11,692	12,854	13,305	14,145	15,130
Ferrous metallurgy.....	586	1,089	1,219	1,327	1,413	1,450
Chemicals.....	278	695	910	1,063	1,164	1,466
Fuels and power.....	2,865	3,658	3,797	3,959	4,176	4,510
Machine building.....	1,139	1,514	1,805	2,045	2,307	2,441
Construction materials.....	310	899	1,011	1,018	932	954
Consumer goods.....	983	1,746	1,962	1,771	1,849	1,929
Others.....	1,528	2,150	2,151	2,124	2,234	2,380
Construction.....	330	946	1,030	1,117	1,050	1,081
Agriculture.....	3,864	5,057	5,172	5,702	6,316	6,983
Transport and communications.....	1,050	3,015	3,452	3,641	3,969	4,239

<sup>1</sup> Based on revised Soviet investment series appearing in *Narodnoye khozyaystvo SSSR v 1963 godu*, pp. 462 and 465.

<sup>2</sup> Expressed in terms of new rubles at 1955 prices.

<sup>3</sup> Estimated.

TABLE IV-5.—U.S.S.R.: Index of productive gross fixed investment, by sector, 1955 and 1959-63<sup>1</sup>

(In percent (1955=100))

	1955	1959	1960	1961	1962	1963
Productive investment, all sectors.....	100	152	166	173	188	202
Industry, total.....	100	154	167	176	188	199
Ferrous metallurgy.....	100	186	208	226	241	247
Chemicals.....	100	250	327	382	419	527
Fuels and power.....	100	129	133	138	149	157
Machine building.....	100	133	154	180	210	214
Construction materials.....	100	284	325	324	301	308
Consumer goods.....	100	194	217	196	205	214
Others.....	100	141	141	130	147	165
Construction.....	100	178	194	211	198	204
Agriculture.....	100	133	136	156	166	184
Transportation and communications.....	100	182	208	220	230	256

<sup>1</sup> Based on table IV-4, which contains estimated data for 1955, 1959, and 1961.

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TABLE IV-6.—U.S.S.R.: Annual rates of growth of productive gross fixed investment by sector,<sup>1</sup> 1959-63

(In percent)

	1959	1960	1961	1962	1
Productive investment, all sectors.....	13.9	8.7	8.6	7.3	
Industry, total.....	15.2	9.9	8.5	6.4	
Ferrous metallurgy.....	23.0	11.9	8.9	6.5	
Chemicals.....	20.1	20.9	16.8	9.5	
Fuels and power.....	2.2	3.0	4.3	5.5	
Machine building.....	19.4	19.2	13.4	17.2	
Construction materials.....	26.0	26.2	0.8	-5.4	
Consumer goods.....	19.0	11.7	-9.7	4.4	
Others.....	17.6	0.0	-1.3	3.2	
Construction.....	12.9	8.9	8.4	-5.0	
Agriculture.....	7.0	2.8	10.2	10.8	
Transportation and communications.....	22.6	14.5	5.5	9.0	

<sup>1</sup> Based on table IV-4, which contains estimated data for 1959 and 1961.

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1962	1963
7.9	7.6
6.4	6.8
6.5	2.6
9.5	25.9
5.5	8.0
17.2	1.8
-8.4	2.4
4.4	4.8
6.2	6.8
-8.0	2.0
10.8	10.6
9.0	6.8

## CHAPTER V

### AGRICULTURE

#### AGRICULTURE IN THE UNITED STATES AND U.S.S.R.

The following tables present a brief statistical comparison of inputs, farm organization, and agricultural output in the United States and the Soviet Union. The comparison is limited to 1963 except for 1955-59 average data on the area, yield, and production of grain.

An international comparison is an inadequate tool to describe the structure and functioning of the agriculture of a foreign nation. Nevertheless, it does provide a frame of reference for basic understanding. Perhaps the principal observation to be drawn from the accompanying data is the striking difference in the productivity of American and Soviet agriculture. While some of the difference is attributable to more favorable natural conditions—weather and soil fertility—in the United States, much of it derives from the pattern of resource utilization in each country. The Soviet Union relies on massive inputs of labor and land to obtain mediocre results; the United States substitutes advanced technology to achieve better results. The gargantuan size of collectivized farm units in the U.S.S.R.—both in terms of land area and labor force—also militates against efficiency. Unwieldy units are difficult to manage, and individual incentive is dulled by the herd approach to personnel management.

A final generalization is that because of low yields and the pressure of population Soviet agriculture is forced into the pattern of a bread grain and potato economy. Higher yields and greater productivity have permitted American agriculture to assume the more advanced pattern of a corn-hog economy—a pattern the Soviet Union hopes to emulate.

The U.S. lead in agricultural productivity is somewhat overstated in the present comparison. U.S. crop output was at a record high in 1963, despite critical moisture shortages in the Southern Plains and Mid-Atlantic States. Conversely, the Soviet crop production index in 1963 was at its lowest level since 1957 because of a crop failure in the Virgin Lands and extensive drought in the European U.S.S.R.

Data on American agriculture are from publications of the U.S. Department of Agriculture unless otherwise noted. Most data on Soviet agriculture are from Soviet sources, but are expressed in units common to the United States. Certain data on Soviet agriculture are estimates, necessitated by the unavailability of information (e.g., labor force), or the unreliability of official Soviet statistics (e.g., crop production, especially grain).

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TABLE V-1.—Agricultural resources

Item	Year	Unit	United States	Soviet Union
Population	July 1, 1963	Million	183.4	221
Civilian labor force (work experience)	1962	do	82.0	115
Annual average employment	1963	do	68.8	102
Agricultural labor force (work experience)	do	do	4.5	47
Annual average employment in agriculture	do	do	4.9	37
Percent farm of total labor force (work experience)	do	Percent	7.9	40
Percent farm employment of total (annual average)	do	do	7.1	36
Sown crop land	do	Million acres	11,309	134
Sown crop land per capita	do	Acre	1.6	2
Tractors on farms	Jan. 1, 1964	Thousand	4,637	11,44
Motortrucks on farms	do	do	2,915	14
Grain combines on farms	do	do	1,010	15
Agricultural consumption of electricity	1962	Billion kilowatt-hours	128	14
Primary commercial fertilizer consumption in terms of available plant nutrients				
Total	1963	Thousand short tons	9,532	3,50
Per acre of sown area	do	Pounds	62	1

- <sup>1</sup> U.S. Bureau of the Census, *Statistical Abstract of the United States: 1964*, eighty-fifth edition, D.C., 1964, p. 5.
- <sup>2</sup> USSR Central Statistical Administration, *Narodnoe khozyaystvo SSSR v 1962 godu*, Moscow, 1963, p. 219.
- <sup>3</sup> U.S. Department of Agriculture (USDA) estimate based on Soviet census of 1959.
- <sup>4</sup> *Statistical Abstract* \* \* \*, op. cit., p. 216.
- <sup>5</sup> U.S. Bureau of the Census preliminary estimate.
- <sup>6</sup> USDA, Office of Information, *Fact Book of U.S. Agriculture*, Washington, D.C., January 1, 1964, p. 10.
- <sup>7</sup> USDA estimate based on Soviet census of 1959. Persons employed in agriculture in 1962, including their private plots.
- <sup>8</sup> *Statistical Abstract* \* \* \*, op. cit., p. 216.
- <sup>9</sup> U.S. Bureau of the Census preliminary estimate.
- <sup>10</sup> USDA, Statistical Reporting Service, *Crop Production: 1964 Annual Summary*, Washington, December 18, 1964, p. 6.
- <sup>11</sup> *Narodnoe khozyaystvo SSSR v 1963 godu*, Moscow, 1965, p. 242.
- <sup>12</sup> USDA, Economic Research Service, *Changes in Farm Production and Efficiency, Summary*, Statistical Bulletin No. 233, Washington, D.C., July, 1964, p. 30.
- <sup>13</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., p. 332.
- <sup>14</sup> *Fact Book* \* \* \*, op. cit., p. 31.
- <sup>15</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., p. 337.
- <sup>16</sup> *Changes in Farm Production* \* \* \*, op. cit., p. 22.
- <sup>17</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., p. 300.

TABLE V-2.—Farm numbers and size, 1963

Number of farms:	
All U.S. farms <sup>1</sup>	.....
Soviet collective farms <sup>2</sup>	.....
Soviet state farms <sup>3</sup>	.....
Average farm size:	
Land area per U.S. farm <sup>4</sup>	..... acre
Sown area per U.S. farm	..... do
Land area per Soviet collective farm <sup>5</sup>	..... do
Sown area per Soviet collective farm <sup>6</sup>	..... do
Land area per Soviet state farm <sup>7</sup>	..... do
Sown area per Soviet state farm <sup>8</sup>	..... do
Workers per U.S. farm	.....
Households per Soviet collective farm <sup>9</sup>	.....
Workers per Soviet state farm <sup>10</sup>	.....

- <sup>1</sup> USDA, ERS, *Farm Income Situation, FIS-106*, Washington, D.C., November 1964, p. 22.
- <sup>2</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., pp. 348, 356.
- <sup>3</sup> *Fact Book* \* \* \*, op. cit., p. 5.
- <sup>4</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., pp. 328, 342, 348.
- <sup>5</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., pp. 328, 356. Includes all state agricultural enterprises.
- <sup>6</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., p. 355.
- <sup>7</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., p. 342.
- <sup>8</sup> *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., p. 358.

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TABLE V-3.—Crop acreage, 1963

Soviet Union	U.S.S.R. as percent of United States	Crop	United States <sup>1</sup>	Soviet Union <sup>2</sup>	U.S.S.R. as percent of United States
			Thousand acres	Thousand acres	
224.8		Corn, grain.....	60,549	17,280	29
115.0	16	Wheat.....	45,209	159,600	353
102.0	148	Rye.....	1,894	87,100	2,377
47.0	723	Oats.....	21,083	14,100	65
87.0	753	Barley.....	11,566	60,700	428
60.9		Sorghum grain.....	13,582	( <sup>3</sup> )	
36.3		Rice.....	1,771	247	14
64.0	176	Cotton, lint.....	14,212	4,180	42
2.4	150	Soybeans for beans.....	28,580	( <sup>3</sup> )	
1,442	21	Sunflowers.....	( <sup>3</sup> )	10,860	
922	32	Peanuts harvested for nuts.....	1,409	( <sup>3</sup> )	
617	51	Flax.....	3,183	3,620	114
14.1	50	Sugarbeets.....	1,235	9,261	750
2,694	38	Sugarcane, for sugar and seed.....	579	( <sup>3</sup> )	
15	24	Tobacco.....	1,176	4,405	34
		Potatoes.....	1,347	21,000	1,539
		Sweet potatoes.....	106	( <sup>3</sup> )	
		Vegetables.....	3,354	3,556	106
		Fruits and berries, including citrus.....	2,499	5,011	201
		Citrus.....	703	( <sup>3</sup> )	
		Hay, all.....	66,738	( <sup>3</sup> )	

<sup>1</sup> Area harvested. *Crop Production* \* \* \*, op. cit., pp. 3-4, 51.<sup>2</sup> Sown area after completion of spring planting. *Narodnoe khozyaystvo 1963* \* \* \*, op. cit., pp. 242, 243, 295.<sup>3</sup> Includes only winter rye in the U.S.S.R.<sup>4</sup> U.S.S.R. Central Statistical Administration, *SSSR s tsifryakh s 1963 godu*. Moscow, 1964, p. 96.<sup>5</sup> Not available.<sup>6</sup> Flaxseed in the United States; fiber flax in the U.S.S.R.<sup>7</sup> Includes only sugarbeets for factory processing in the U.S.S.R.<sup>8</sup> USDA estimate.<sup>9</sup> United States: Commercial acreage only.<sup>10</sup> United States: 21 fruits only.

TABLE V-4.—Yields per acre of major crops, 1963

Crop	Unit	United States <sup>1</sup>	Soviet Union <sup>2</sup>	U.S.S.R. as percent of United States
Corn, grain.....	Bushel.....	67.6	22.5	33
Wheat.....	do.....	25.3	9.2	36
Rye.....	do.....	18.3	12.4	68
Oats.....	do.....	45.2	18.1	40
Barley.....	do.....	35.1	14.9	42
Sorghum grain.....	do.....	43.3	( <sup>3</sup> )	
Rice.....	Pound.....	3,068	2,400	60
Cotton, lint.....	do.....	517	637	123
Soybeans for beans.....	Bushel.....	24.5	( <sup>3</sup> )	
Sunflower seeds.....	Pound.....	( <sup>3</sup> )	726	
Sugarbeets.....	Ton.....	18.9	5.2	27
Tobacco.....	Pound.....	1,993	840	42
Potatoes.....	Hundredweight.....	201.6	67.9	34

<sup>1</sup> *Crop Production* \* \* \*, op. cit., pp. 4, 5.<sup>2</sup> Derived from tables V-3 and V-5.<sup>3</sup> Not available.

lition, Washington,

Moscow, 1963, p. 7.

uary 1963, p. 2.  
1962, including those

Washington, D.C.,

Summary Report, 1964,

3,573,000  
38,772  
9,176325  
86  
32,470  
7,156  
147,300  
24,160  
1.4  
411  
775

p. 22.

enterprise.

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TABLE V-5.—Crop production, 1963

Crop	Unit	United States <sup>1</sup>	Soviet Union <sup>2</sup>	U.S.S.R. percent United States
Corn, grain.....	Thousand bushels...	4,091,665	4,384,000	
Wheat.....	do.....	1,142,013	1,470,000	
Rye.....	do.....	29,215	461,000	
Oats.....	do.....	979,400	255,000	
Barley.....	do.....	408,577	783,000	
Sorghum grain.....	do.....	567,900	( <sup>3</sup> )	
Rice, rough.....	Thousand tons.....	3,514	300	
Cotton, lint.....	Thousand bales.....	15,334	8,128	
Soybeans for beans.....	Thousand bushels.....	699,363	10,400	
Sunflower seed.....	Thousand tons.....	( <sup>4</sup> )	3,940	
Peanuts harvested for nuts.....	do.....	1,011	( <sup>5</sup> )	
Flaxseed.....	Thousand bushels.....	31,151	10,000	
Sugarbeets.....	Thousand tons.....	23,228	48,559	
Sugarcane, for sugar and seed.....	do.....	24,073	( <sup>6</sup> )	
Sugar production <sup>7</sup> .....	do.....	6,439	0,477	
Tobacco.....	Thousand pounds.....	2,343,230	340,000	
Fiber flax.....	Thousand tons.....	( <sup>8</sup> )	419	
Potatoes.....	Thousand hundred-weight.....	271,730	1,425,000	
Sweet potatoes.....	do.....	15,381	( <sup>9</sup> )	
Vegetables.....	Thousand tons.....	19,040	10,700	
Citrus.....	do.....	6,209	( <sup>10</sup> )	
Grapes.....	do.....	3,793	2,635	
Total fruits (including citrus, grapes and berries).....	do.....	10,659	7,067	
Hay, all kinds.....	do.....	116,032	( <sup>11</sup> )	

<sup>1</sup> Crop production: 1964 \* \* \*, op. cit., pp. 3, 4, and 50.<sup>2</sup> Narodnoe khozyaystvo 1963 \* \* \*, op. cit., pp. 276-286, 299.<sup>3</sup> USDA estimate.<sup>4</sup> Not available.<sup>5</sup> For sugar production.<sup>6</sup> Raw value, 1963-64 processing year.<sup>7</sup> Production in 1963-64 from continental beet and cane, and from Puerto Rico, Hawaii, and Virgin Islands.<sup>8</sup> USDA, Foreign Agricultural Service, World Agricultural Production and Trade, Washington, 1 November 1964, p. 6.<sup>9</sup> Production from domestic beets.<sup>10</sup> Commercial vegetable production.<sup>11</sup> Excluding berries.TABLE V-6.—Livestock numbers, 1964<sup>1</sup>

	United States <sup>2</sup>	Soviet Union <sup>3</sup>	U.S.S.R. percent United States
	Million head	Million head	Per cent
All cattle.....	100.7	85.4	
Cows.....	48.6	38.3	
Hogs.....	58.1	40.9	
Sheep.....	28.0	133.9	
Horses.....	2.0	8.5	
Poultry.....	876.2	550.4	

<sup>1</sup> Beginning of year.<sup>2</sup> USDA, FRS, Livestock and Poultry Inventory, Jan. 1, Washington, D.C., Feb. 12, 1965, p. 9.<sup>3</sup> Narodnoe Khozyaystvo 1963 \* \* \*, op. cit., p. 311.<sup>4</sup> 2 years and older.<sup>5</sup> All cows.<sup>6</sup> Fact Book \* \* \*, op. cit., p. 21.<sup>7</sup> Chickens and turkeys.<sup>8</sup> All poultry, 1963. Narodnoe khozyaystvo 1963 \* \* \*, op. cit., p. 307.

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TABLE V-7.—Production of livestock commodities, 1963

Commodity	Unit	United States	Soviet Union <sup>1</sup>	U.S.S.R. as percent of United States
Beef and veal.....	Million pound.....	\$ 17,350	6,930	40
Pork.....	do.....	\$ 12,439	6,940	56
Mutton, lamb, and goat.....	do.....	\$ 770	2,120	273
Poultry meat.....	do.....	\$ 7,400	1,760	24
Lard.....	do.....	\$ 2,476	1,300	53
Margarine and shortening.....	do.....	\$ 4,355	\$ 1,248	29
Tallow and grease.....	do.....	\$ 4,480	460	10
Milk (cows).....	do.....	\$ 124,800	114,640	92
Butter.....	do.....	\$ 1,434	\$ 1,027	71
Eggs.....	Billion.....	\$ 63.4	\$ 28.5	45
Wool.....	Million pound.....	\$ 287	614	284

<sup>1</sup> USDA estimate.<sup>2</sup> USDA, ERS, *Livestock and Meat Situation*, LMS-140. Washington, D.C., November 1964, p. 7.<sup>3</sup> *Fact Book* \* \* \* op. cit., pp. 22, 23.<sup>4</sup> USDA, ERS, *Fats and Oils Situation*, FOS-222. Washington, D.C., March 1964.<sup>5</sup> *Narodnoe khozyaystvo 1963* \* \* \* op. cit., p. 204.<sup>6</sup> USDA, FAS, *World Agricultural Production and Trade*. Washington, D.C., July 1964, p. 10.<sup>7</sup> *Trifakt* \* \* \* op. cit., p. 87.<sup>8</sup> *Narodnoe khozyaystvo 1963* \* \* \* op. cit., p. 314.<sup>9</sup> USDA, FAS, *World Agricultural Production and Trade*. Washington, D.C., August 1964, p. 10.

TABLE V-8.—Area of major grains, 1955-59 average, 1963

Item	1955-59 average			1963		
	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>	U.S.S.R. as percent of United States	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>	U.S.S.R. as percent of United States
	1,000 acres	1,000 acres	Percent	1,000 acres	1,000 acres	Percent
Corn, grain.....	66,409	11,653	18	60,549	17,300	29
Oats.....	23,093	36,109	106	21,683	14,100	65
Barley.....	14,391	24,809	172	11,666	50,700	438
Sorghum grain.....	14,742			13,582		
4 feed grains.....	128,635	72,771	57	107,360	82,000	76
Wheat.....	49,128	158,722	323	45,209	159,600	353
Rye.....	1,729	44,742	2,588	1,504	37,100	2,327
Buckwheat.....	90	5,384	5,962	40	4,448	11,120
Rice.....	1,547	269	19	1,771	247	14
4 food grains.....	52,494	209,147	398	48,614	201,400	414
Total, 8 grains.....	181,129	281,918	156	156,994	283,400	182

<sup>1</sup> *Crop Production* \* \* \* op. cit., p. 41.<sup>2</sup> U.S.S.R. Central Statistical Administration, *Statskoe khozyaystvo SSSR*, Moscow, 1960, pp. 132-33.<sup>3</sup> *Trifakt* \* \* \* op. cit., p. 96.

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TABLE V-9.—Yields of major grains, 1955-59 average, 1963

Item	1955-59 average			1963		
	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>	U.S.S.R. as percent of United States	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>	U.S.S.R. per cent of United States
	<i>Bushels per acre</i>	<i>Bushels per acre</i>	<i>Percent</i>	<i>Bushels per acre</i>	<i>Bushels per acre</i>	<i>Percent</i>
Corn, grain.....	48.7	25.0	51	67.6	22.3	
Oats.....	28.6	22.0	59	48.3	18.1	
Barley.....	29.5	17.8	60	35.1	14.9	
Sorghum grain.....	29.2			43.3		
4 feed grains <sup>3</sup> .....	2,072	883	43	2,914	803	
Wheat.....	22.2	12.0	54	25.3	9.2	
Rye.....	15.6	13.4	86	18.3	12.4	
Buckwheat.....	17.5	7.2	41	20.7	6.5	
Rice, rough.....	70.9	36.8	52	88.2	53.5	
4 food grains <sup>3</sup> .....	1,390	720	52	1,588	576	
Total, 8 grains <sup>3</sup> .....	1,674	762	41	2,801	642	

<sup>1</sup> Crop Production \* \* \* op. cit., p. 44.<sup>2</sup> Derived from tables V-8 and V-10.<sup>3</sup> Pounds per acre.

TABLE V-10.—Production of major grains, 1955-59 average, 1963

Item	1955-59 average			1963		
	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>	U.S.S.R. as percent of United States	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>	U.S.S.R. per cent of United States
	<i>Million bushels</i>	<i>Million bushels</i>	<i>Percent</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Percent</i>
Corn, grain.....	3,235	297	9	4,092	386	
Oats.....	1,278	828	65	979	255	
Barley.....	424	441	104	406	753	
Sorghum grain.....	430			588		
4 feed grains <sup>3</sup> .....	133	82	24	156	33	
Wheat.....	1,095	1,911	174	1,142	1,470	
Rye.....	27	599	2,218	29	461	
Buckwheat.....	2	88	1,900	1	29	
Rice, rough.....	110	11	10	156	13	
4 food grains <sup>3</sup> .....	36	75	208	39	58	
Total, 8 grains <sup>3</sup> .....	170	107	63	195	91	

<sup>1</sup> Crop Production \* \* \* op. cit., p. 44.<sup>2</sup> USDA estimate.<sup>3</sup> Million short tons.

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age, 1963

TABLE V-11.—Soviet Union: Production of 5 major grains and total grain, USDA estimates and official Soviet estimates, 1958-64

[In million metric tons]

U.S.S.R. <sup>1</sup>	U.S.S.R. as percent of United States	Year	Total grain <sup>1</sup>		5 major grains <sup>1</sup>	
			USDA estimates	Soviet official <sup>2</sup>	USDA estimates	Soviet official <sup>2</sup>
Bushels per acre	Percent					
22.3	38	1958	118.0	134.7	110.0	128.0
18.1	40	1959	94.2	119.5	90.6	115.3
14.9	42	1960	95.0	125.5	89.4	118.4
		1961	109.4	130.8	102.2	122.5
		1962	111.9	140.2	101.6	127.9
		1963	89.3	107.5	81.6	(9)
		1964	116.1	(9) ±150.0	103.9	(9)
803	28					
9.2	36					
12.4	65					
5.5	31					
53.5	61					
676	30					
642	26					

<sup>1</sup> Wheat, rye, barley, oats, corn for grain, millet, buckwheat, rice, pulses (immature corn excluded in both categories).<sup>2</sup> Wheat, rye, barley, oats, corn for grain.<sup>3</sup> Narodnoe khozyaystvo SSSR v 1963 godu, pp. 234-235.<sup>4</sup> Not available.<sup>5</sup> The increasing gap between total grain and the 5 major grains since 1958 is due to the rapid expansion of pulses.<sup>6</sup> Implied in Ekonomika Sel'skogo Khozyaystva, No. 2, 1965, p. 2.

average, 1963

U.S.S.R. <sup>1</sup>	U.S.S.R. as percent of United States	Year
Million bushels	Percent	
298	9	
235	20	
753	185	
23	21	
1,470	120	
461	1,680	
29	2,900	
12	8	
58	140	
91	47	

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TABLE V-9.—Yields of major grains, 1955-59 average, 1963

Item	1955-59 average			1963	
	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>	U.S.S.R. as percent of United States	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>
	<i>Bushels per acre</i>	<i>Bushels per acre</i>	<i>Percent</i>	<i>Bushels per acre</i>	<i>Bushels per acre</i>
Corn, grain.....	45.7	25.0	55	67.6	22.3
Oats.....	28.8	22.9	80	45.2	18.1
Barley.....	29.5	17.8	60	23.1	14.9
Sorghum grain.....	29.2			43.3	
4 feed grains <sup>3</sup> .....	2,072	883	43	2,914	803
Wheat.....	22.2	12.0	54	25.3	9.2
Rye.....	18.6	12.4	66	18.3	12.4
Buckwheat.....	17.5	7.2	41	20.7	6.5
Rice, rough.....	70.9	26.8	38	88.2	53.5
4 food grains <sup>3</sup> .....	1,390	720	52	1,588	576
Total, 8 grains <sup>3</sup> .....	1,574	702	45	2,501	842

<sup>1</sup> Crop Production \* \* \* op. cit. p. 44.<sup>2</sup> Derived from tables V-8 and V-10.<sup>3</sup> Pounds per acre.

TABLE V-10.—Production of major grains, 1955-59 average, 1963

Item	1955-59 average			1963	
	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>	U.S.S.R. as percent of United States	United States <sup>1</sup>	U.S.S.R. <sup>2</sup>
	<i>Million bushels</i>	<i>Million bushels</i>	<i>Percent</i>	<i>Million bushels</i>	<i>Million bushels</i>
Corn, grain.....	3,233	297	9	4,092	366
Oats.....	1,278	828	65	979	255
Barley.....	424	441	104	406	753
Sorghum grain.....	430			588	
4 feed grains <sup>3</sup> .....	133	32	24	136	33
Wheat.....	1,023	1,911	174	1,142	1,470
Rye.....	27	599	2,218	29	461
Buckwheat.....	2	28	1,400	1	29
Rice, rough.....	110	11	10	156	13
4 food grains <sup>3</sup> .....	36	73	208	39	58
Total, 8 grains <sup>3</sup> .....	170	107	63	195	91

<sup>1</sup> Crop Production \* \* \* op. cit. p. 48.<sup>2</sup> USDA estimate.<sup>3</sup> Million short tons.

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TABLE V-11.—Soviet Union: Production of 5 major grains and total grain, USDA estimates and official Soviet estimates, 1958-64

(In million metric tons)

Year	Total grain <sup>1</sup>		5 major grains <sup>2</sup>	
	USDA estimates	Soviet official <sup>3</sup>	USDA estimates	Soviet official <sup>3</sup>
1958.....	115.0	134.7	110.0	128.9
1959.....	94.2	119.8	90.6	115.3
1960.....	95.0	125.5	89.4	115.4
1961.....	109.4	130.8	102.2	122.5
1962.....	111.9	140.2	101.6	127.9
1963.....	89.2	107.5	81.6	(4)
1964.....	<sup>5</sup> 116.1	(4) ±150.0	103.9	(4)

<sup>1</sup> Wheat, rye, barley, oats, corn for grain, millet, buckwheat, rice, pulses (immature corn excluded in both categories).<sup>2</sup> Wheat, rye, barley, oats, corn for grain.<sup>3</sup> *Narodnoe khozyaystvo SSSR v 1963 godu*, pp. 234-235.<sup>4</sup> Not available.<sup>5</sup> The increasing gap between total grain and the 5 major grains since 1958 is due to the rapid expansion of pulses.<sup>6</sup> Implied in *Ekonomika Sel'skogo Khozyaystva*, No. 2, 1965, p. 2.U.S.S.R. as  
percent of  
United  
States

Percent

33

40

42

28

36

68

31

61

36

26

U.S.S.R. as  
percent  
of United  
States

Percent

9

26

185

21

129

1,680

2,900

8

149

47

166



## CHAPTER VI

### EMPLOYMENT

Labor force participation—the civilian labor force as a proportion of the total population 16 years of age and over—is estimated to have increased in the Soviet Union from 74 percent during the years 1958-60 to 77 percent in 1963 (table VI-1). The rise in the participation rate was due largely to the greater participation of women in the labor force, although a contributing factor was the somewhat lesser increase in the population 16 years of age and over resulting from the smaller cohorts born during World War II entering the labor force ages.

The labor force estimates, which are given here for the first time, are based on the census concept of numbers of persons who participated in economic activity during the year. As can be expected, they are markedly higher than the average numbers of persons employed shown in the estimates of civilian employment. The differences between the two series are in large part methodological, although they do reflect the high degree of seasonality and mobility characteristic of the Soviet labor force.

The estimates of civilian employment shown in table VI-2 reveal some interesting developments. Despite the many claims of larger investment to be devoted to agriculture, employment in that sector did not decrease to a level below 40 million persons until 1963. As a proportion of total civilian employment, however, agricultural employment has decreased from 50 percent in 1955 to 39 percent in 1963. Further decrease in the level of employment is not expected—at least until the impact of recent investments can make possible the transfer of labor to other sectors. Also, the policy of forbidding further conversion of collective farms into state farms recently announced should tend to keep agricultural employment at a relatively high level, as there is evidence that after such conversions in the past a certain proportion of the collective farmers did not continue to participate in either the socialized or private sectors.<sup>1</sup>

Within the state sector, the rates of increase in the employment of workers and employees have undergone perceptible reduction, particularly in the production branches (table VI-4). During the early part of the Seven-Year Plan period, the increase in almost all branches was greater than it has been in recent years. For example, in the period 1959-60, the following rates of increase were achieved: 10.3 percent in industry, 7.1 percent in construction, 5.3 percent in transport and communications, 19.6 percent in science and scientific services, 6.5 percent in trade and procurement, 5.4 percent in education, and 6.6 percent in public health. In the period 1962-63, the increase in the production branches had slowed down to 3.1 percent in industry, 1.3 percent in construction, and 2.8 percent in transport

<sup>1</sup> N. I. Shishkin, *Trudovyye resursy SSSR*, Moscow, 1961, p. 92. In 1959 and 1960, according to this source, 3.4 percent of the able-bodied group did not participate in the labor force after conversion.

and communications. The major services branches, however, maintained somewhat higher rates of growth: 7.1 percent in health and scientific services, 4.4 percent in trade and procurement, and 3.8 percent in public health.

Several new tables have been incorporated in the employment section this year. The first, on industrial employment (table VI-5), is based on a previous table, but contains a larger number of branches for which data are available on the employment of wage workers (*rabochiye*), and, as reported for the first time since the 1930's, automatic data on the number of industrial-production personnel in various branches of industry. The second new table, VI-6, includes the average number of days and hours worked in industry by wage workers. The third new table, VI-7, presents a Soviet economist's own comparison over time of Soviet and U.S. labor productivity, by various branches of industry. (A single column (5a) from this table was analyzed by Dr. Gertrude Schroeder in *Dimensions of Soviet Economic Power*, pp. 137-162.) The comparisons here show the difficulty the Soviet Union has been having in achieving levels of productivity approaching those of the United States. According to these estimates, in only one branch—bread and bakery products—has the Soviet productivity exceeded the level of American productivity. In most branches, the Soviet Union has not achieved large productivity advances since the initial years of the comparison, and, in many branches, it has even lost ground. For example, the ratio of productivity in the vital synthetic rubber industry has declined from 100 percent (U.S.S.R. 1950; U.S. 1947) to 12.1 percent in the most recent year (U.S.S.R. 1959; U.S. 1958). Constant declines in the productivity of the U.S.S.R./U.S. ratios appear in 8 of the 31 other branches for which estimates are given.

Detailed estimates of basic employment data pertinent to the socialized economy of collective farms are given in table VI-8. The decline in the total number of participants and in the average number of collective farmers may not continue, not only because of the factors indicated above, but also because of changes in the pension system which encourage the return of retired persons to the active workforce to obtain the required number of years of continuous work.

Significant changes in the pension law for workers and employees engendered a Soviet estimate of 1 million persons to be added to the active work force from among persons already on a pension or retired from working. The need for experienced, skilled persons was reflected in changes in the school system which will eventually reduce the length of training in higher and secondary specialized educational institutions, eliminate the 11th year of school, and reduce the period of active service for military personnel with higher educational training. The thrust of all these measures will be to allow a longer working life for trained persons and to relieve the evident shortage of skills throughout the economy.

Comparisons of total employment estimates for the U.S.S.R. and the United States (table VI-11) indicate that U.S. employment remained at about 68 percent of Soviet employment since 1961. A slight reduction has taken place in the proportion of total employment in agriculture in the U.S.S.R. (adjusted to approximate U.S. figures—table VI-12) from 40.5 percent in 1959 to 36.1 percent in 1961. For the corresponding period in the United States, this proportion

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was reduced from 8.8 to 7.2 percent. Soviet employment in agriculture, as adjusted to U.S. concepts, is estimated to be more than seven times that of the United States (36,499,000 as compared with 4,946,000).

TABLE VI-1.—Population, Labor Force, and Employment, U.S.S.R.: 1958-65

[In thousands. Population figures are as of July 1, labor force figures are as of Jan. 1, and employment figures are annual averages. Figures are independently rounded and may not add to totals; NA indicates data not available and no estimate made]

Population characteristic	1958	1959	1960	1961	1962	1963	1964	1965
Total population.....	206,806	210,492	214,228	217,948	221,409	224,667	227,898	230,804
I. Population aged 12 years and over.....	153,643	155,876	158,374	161,204	164,143	167,171	170,200	173,204
Excluding population aged 12 to 15 years.....	144,641	145,484	146,144	147,141	148,621	150,565	152,942	155,632
A. Able-bodied group.....	119,613	119,566	119,373	119,825	120,142	121,162	122,535	124,156
1. Males aged 16 to 59 years.....	54,799	55,114	55,822	55,702	56,320	57,156	58,192	59,368
2. Females aged 16 to 54 years.....	64,814	64,451	64,082	63,824	63,822	64,006	64,346	64,789
B. Overaged group.....	25,028	25,918	26,772	27,616	28,478	29,402	30,403	31,475
1. Males aged 60 years and over.....	6,528	6,730	6,914	7,102	7,302	7,526	7,782	8,064
2. Females aged 55 years and over.....	18,500	19,188	19,858	20,512	21,176	21,876	22,621	23,411
C. Underaged group.....	9,002	10,391	12,230	14,065	15,622	16,606	17,318	17,632
1. Males aged 12 to 15 years.....	4,580	5,259	6,194	7,128	7,872	8,426	8,794	8,959
2. Females aged 12 to 15 years.....	4,422	5,132	6,036	6,937	7,750	8,180	8,524	8,674
II. Civilian labor force.....	106,500	108,000	108,100	110,100	113,100	116,000	NA	NA
1. Workers and employees.....	61,300	60,200	68,000	73,100	76,600	79,600	NA	NA
2. Collective farmers.....	42,200	41,800	39,200	37,000	36,500	36,500	NA	NA
III. Civilian employment.....	93,790	94,352	95,692	98,274	100,051	101,048	104,000	NA
A. Socialized sector.....	80,805	82,409	84,332	86,561	88,300	89,926	92,600	NA
1. Workers and employees.....	54,105	56,509	62,032	65,861	68,200	70,526	73,200	76,100
2. Members of producers' cooperatives.....	1,300	1,400	(*)	(*)	(*)	(*)	(*)	(*)
3. Members of collective farms.....	25,400	24,500	22,300	20,700	20,000	19,400	19,400	NA
B. Nonsocialized sector.....	12,985	11,943	11,360	11,713	11,751	11,122	11,400	NA
1. Private agricultural sector.....	12,829	11,769	11,186	11,639	11,677	11,122	11,400	NA
(a) Workers and employees.....	3,654	3,418	3,603	4,424	4,531	NA	NA	NA
(b) Collective farmers.....	9,050	8,250	7,218	7,075	7,015	NA	NA	NA
(c) Individual peasants.....	125	92	75	40	31	0	0	0
2. Independent artisans.....	156	174	174	174	174	(*)	(*)	(*)
IV. Other activities of persons aged 12 years and over—line I less line II—Armed Forces, domestics, day laborers, students, housewives, disabled, unemployed, etc.....	47,143	47,875	50,274	51,106	51,043	51,171	NA	NA
Excluding youths aged 12 to 15 years.....	38,141	37,484	38,044	37,041	35,821	34,665	NA	NA

\* Including private subsidiary economy.

† Plan figure reported in A. Korobov, "Basic Tasks of the Two-Year Plan," *Plennoye khozyaystvo* (Planned Economy), No. 2, February 1964, p. 10.

‡ The system of producers' cooperatives was abolished in October 1960. Employment for this sector is now included in the workers and employees category.

§ In 1962, further legal restrictions caused the virtual elimination of employment in this category. See note 13, table VI-2.

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## Source:

A. Population: Estimates and projections prepared by the Foreign Demographic Analysis Bureau of the Census.

B. Civilian labor force: All figures are estimated. The total for this category is derived as the sum of the 2 components.

1. Workers and employees: The total is the sum of estimates for the socialized and private subsidiary economies.

(a) Socialized economy: Estimates of the "average" number of workers and employees for January 1 of each year were prepared by averaging the annual average number reported in a year (table VI-4) with the annual average number reported for the previous year. Beginning-of-year "averages" were expanded to labor force figures for each year by multiplying them by the ratio of workers and employees reported in the census of Jan. 15, 1950, to the "average" figure for Jan. 1, 1950. The census figure used here excluded 1,000,000 persons reportedly are not included in current employment statistics.

(b) Private subsidiary economy: Derived as the difference between estimates of total collective farm employment in this category. See below.

2. Collective farmers: The total is the sum of estimates for the socialized and private subsidiary economies.

(a) Socialized economy: Computed as the product of an index (1955=100) of household agricultural collective farms and the ratio of participants in the socialized economy (table VI-8, col. 1) to the number of households in 1955. The numbers of households are in TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1955 godu, statisticheskiy yezhegodnik* (The National Economy of the U.S.S.R. in 1955, A Statistical Yearbook), 1955, p. 330, and TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1963 godu, statisticheskiy yezhegodnik* (The National Economy of the U.S.S.R. in 1963, A Statistical Yearbook), Moscow, 1963, p. 348.

(b) Private subsidiary economy: Computed by expanding reported totals of "employment" in this sector to numbers of participants. The man-year employment reported in the Soviet statistical handbooks—TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskiy yezhegodnik* (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook), Moscow, 1961, p. 521, TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskiy yezhegodnik* (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook), Moscow, 1962, p. 461, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhegodnik* (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook), Moscow, 1963, p. 313. The used to expand the employment figures was computed by dividing the total of persons reported in the 1959 census as participating solely in this sector (see *Annual Indicators*, 1964, table V-A-1, p. 44) by the man-year employment in this sector in 1959 (6 reported in TsSU pri Sovete ministrov SSSR, *Selskoye khozyaystvo SSSR, statisticheskiy yezhegodnik* (Agriculture of the U.S.S.R., A Statistical Compilation), Moscow, 1960, p. 45; collective farm component was estimated from the total for each year by applying the ratio of collective farmers in the private subsidiary sector reported in the 1959 census (5,700,000) to total participants in this sector as reported by the census (9,900,000).

C. Employment: Table 2.

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TABLE VI-2.—Civilian employment, by socioeconomic category, U.S.S.R., selected years, 1940-64

[Absolute figures are annual averages and are in thousands; NA indicates data not available and no estimate made]

Socioeconomic category	1940	1950	1953	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Total <sup>1</sup>	79,019	79,593	81,943	87,476	90,313	91,512	93,790	94,352	95,692	98,274	100,051	101,049	104,000
I. Nonagricultural branches <sup>1</sup>	31,020	36,778	41,032	43,798	45,447	47,323	49,499	51,893	54,724	57,819	59,866	61,788	NA
A. Workers and employees <sup>1</sup>	28,216	33,014	39,218	41,834	44,052	45,978	48,043	50,319	54,550	57,645	59,892	61,788	( <sup>2</sup> )
1. Industry <sup>4</sup>	10,967	14,144	16,281	17,367	18,500	19,144	19,675	20,207	22,291	23,473	24,297	25,037	NA
2. Construction <sup>4</sup>	1,563	2,569	2,843	3,190	3,550	4,000	4,421	4,800	5,143	5,270	5,150	5,237	NA
3. Transport and communications <sup>4</sup>	3,911	4,624	5,352	5,650	5,840	5,994	6,332	6,693	7,017	7,308	7,509	7,718	NA
4. Trade and public dining <sup>4</sup>	3,303	3,325	3,463	3,725	3,826	4,017	4,190	4,389	4,675	5,010	5,253	5,487	NA
5. Public health and education <sup>4</sup>	4,531	6,080	6,815	7,607	7,933	8,330	8,775	9,275	10,037	10,453	11,552	12,139	NA
6. Other <sup>1</sup>	3,949	4,272	4,484	4,293	4,493	4,471	4,650	4,985	5,397	5,729	6,931	6,151	NA
B. Members of producers' cooperatives <sup>4</sup>	2,200	1,500	1,600	1,800	1,200	1,200	1,300	1,400	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1. Industry <sup>10</sup> (industrial-production personnel)	1,700	1,300	1,400	1,600	1,100	1,100	1,100	1,200	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
2. Services <sup>11</sup>	500	200	200	200	100	100	200	200	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
C. Independent artisans <sup>12</sup>	604	264	214	164	195	145	150	174	174	174	174	( <sup>2</sup> )	( <sup>2</sup> )
II. Agriculture <sup>1</sup>	47,999	42,815	40,910	43,678	44,866	44,189	44,291	42,459	40,968	40,455	40,183	39,260	NA
A. Workers and employees <sup>1</sup>	5,015	6,424	6,812	7,631	7,672	9,147	9,716	9,608	11,875	12,640	13,139	NA	( <sup>2</sup> )
1. Socialized sector <sup>1</sup>	2,976	3,881	4,213	4,628	4,693	5,695	6,062	6,190	7,482	8,216	8,698	8,738	NA
a. State farms, etc. <sup>8</sup>	1,700	2,425	2,552	2,832	2,925	3,961	4,614	4,957	6,324	7,308	7,730	7,874	NA
b. Machine tractor stations and repair-technical stations <sup>11</sup>	530	678	889	1,147	1,058	960	710	469	344	3	0	0	0
c. Forestry <sup>8</sup>	279	444	416	389	300	377	367	352	359	278	289	290	NA
d. Agricultural activities not specifically identified <sup>4</sup>	407	834	326	280	290	278	362	412	451	469	469	465	NA
2. Private sector (in conventional man-year equivalents) <sup>14</sup>	2,039	2,543	2,599	3,003	3,000	3,542	3,654	3,418	3,893	4,424	4,531	( <sup>2</sup> )	( <sup>2</sup> )

See footnotes at end of table.

<sup>1</sup> Division, as the sum of private sub-employees on reported for at three multiplying the "aver- from who total and subsidiary holds on in 1939 reported collectively Moscow of a 1963 National man-year with are and the U.S.S.R. economy of aggregate 1,000 per- economic 1,801,000, 1963. The ratio of to the



TABLE VI-2.—Civilian employment, by socioeconomic category, U.S.S.R., selected years, 1940-64—Continued

[Absolute figures are annual averages and are in thousands; NA indicates data not available and no estimate made]

Socioeconomic category	1940	1950	1953	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
II. Agriculture <sup>1</sup> —Continued													
B. Collective farmers in collective farm economy <sup>2</sup>	37,034	35,239	33,910	35,841	37,027	34,910	34,450	32,759	29,818	27,775	27,015	NA	NA
1. Socialized sector—total <sup>3</sup>	27,900	27,300	25,829	26,718	27,522	25,865	25,400	24,500	22,300	20,700	20,000	19,400	19,400
a. Nonagricultural collective farms <sup>4</sup>	500	500	371	520	542	585	325	399	507	377	216	202	NA
b. Agricultural collective farms <sup>5</sup>	27,400	26,800	25,458	26,198	26,980	25,280	25,075	24,101	21,793	20,323	19,784	19,198	NA
(1) Agricultural activities <sup>6</sup>	24,700	24,200	23,100	23,900	24,600	23,000	22,400	21,400	20,100	18,500	18,100	17,800	NA
(2) Nonagricultural activities <sup>7</sup>	2,700	2,600	2,400	2,300	2,400	2,300	2,700	2,700	1,600	1,600	1,700	1,600	NA
(a) Industry (in conventional man-year equivalents) <sup>8</sup>	615	600	413	617	665	659	627	658	NA	NA	NA	NA	NA
(b) Construction (in conventional man-year equivalents) <sup>9</sup>	697	667	979	1,033	1,046	1,174	1,118	1,163	NA	NA	NA	NA	NA
2. Private sector (in conventional man-year equivalents) <sup>10</sup>	9,134	7,939	8,090	9,143	9,505	9,045	9,050	8,259	7,218	7,075	7,015	( <sup>11</sup> ) 0	( <sup>12</sup> ) 0
C. Individual peasants <sup>13</sup>	8,950	1,152	179	180	107	132	125	92	75	40	31	0	0

<sup>1</sup> Sum of the components.<sup>2</sup> Excludes workers and employees hired by collective farms; the additional employment of workers and employees having more than one job in state establishments and/or performing tasks for private individuals; domestics, day laborers, etc.; (probably) people working full time for the Communist Party; (probably) civilians working in military establishments; and unpaid labor "volunteered" by "social" organizations, such as the Komsomol, in order to plant trees, construct barns on state farms, collect scrap metal, etc.<sup>3</sup> Includes workers and employees, members of producers' cooperatives, and independent artisans who are engaged in economic activities other than those of agriculture and forestry. Workers and employees engaged in normally nonagricultural-type activities of sovkhozy, machine tractor stations, and other state agricultural establishments (industry, construction, health and education, etc.) are included in agricultural employment. All collective farm members are included in agricultural employment.<sup>4</sup> Total number of workers and employees in agriculture and nonagricultural branches is 73,200,000 (table VI-4).<sup>5</sup> Table VI-4.<sup>6</sup> Table VI-4.<sup>7</sup> Table VI-4. Includes housing-communal economy, administrative organs, credit and insurance organizations, and undistributed residual.<sup>8</sup> TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskiy zhurnal* (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook), Moscow, 1961, p. 633 (cited hereafter as *Nar. khz. v 1960*).<sup>9</sup> The system of producers' cooperatives was abolished in October 1960. Employment of this sector is now included in the workers and employees category.<sup>10</sup> By year.<sup>11</sup> *zhurnal* (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook), Moscow, 1957, p. 202 (cited hereafter as *Nar. khz. v 1957*). It should be noted that the 2.2 percent covers all material production branches. Industry, however, is the largest component.<sup>12</sup> 1950: Estimated by assuming the same relationship between the total membership and that employed in industry as in 1953 (87.5 percent).<sup>13</sup> 1953: B. A. Gurevich, *Statistika* (Statistics), Pt. II, [Leningrad], 1954, p. 97.<sup>14</sup> 1955: TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR, statisticheskiy zhurnal* (The National Economy of the U.S.S.R., A Statistical Compilation), Moscow, 1956, p. 44.<sup>15</sup> 1956: *Nar. khz. v 1956*, p. 50. Between 1955 and 1956 a number of enterprises employing 800,000 members in the producers' cooperatives system were transferred to the state sector. Of this number 800,000 were in industry.<sup>16</sup> 1957: Estimated. The figure of 900,000 for wage workers in industry (members of producers' cooperatives) reported in TsSU pri Sovete ministrov SSSR, *SSSR v trifakt, statisticheskiy zhurnal* (The U.S.S.R. in Figures, A Statistical Compilation), Moscow, 1958, p. 59, was expanded by 17 percent (rounded) to cover the entire industrial-production personnel. The expansion factor was derived on the basis of the reported 1959 relationship between wage workers and total industrial-production employment in industry of producers' cooperatives (1,000,000 and 1,200,000, respectively). *Nar. khz. v 1960*, pp. 216-217.<sup>17</sup> 1958: TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1958 godu, statisticheskiy zhurnal* (The National Economy of the U.S.S.R. in 1958, A Statistical Yearbook), Moscow, 1959, p. 131.



book), Moscow, 1961, p. 633 (cited hereafter as *Nar. khoz. s 1950*).  
 \* The system of producers' cooperatives was abolished in October 1960. Employment of this sector is now included in the workers and employees category.  
 \* By year:  
 1940: Estimated as 2.2 percent (of total employment of 79,019,000) reported in TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR s 1950 godu*, statisticheskiy

1950: Ministry of producers' cooperatives (1,000,000 and 1,200,000, respectively). *Nar. khoz. s 1950*, pp. 210-217.  
 1958: TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR s 1950 godu*, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1958, A Statistical Yearbook), Moscow, 1959, p. 131.  
 1959: "Narodnoye khozyaystvo SSSR s 1958 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1959, A Statistical Yearbook), Moscow, 1960, p. 128.  
 \* Residual.

\* 1940, 1950, 1955-58: Approximations derived as follows (in thousands):

Categories	1940	1950	1955	1958	1957	1956
Nonsocialized personnel *	7,694	1,619	350	362	277	281
Individual peasants (line II.C, table VI-2)	7,000	1,335	184	167	132	125
Independent artisans (residual)	694	284	166	195	145	156

\* U.S. Bureau of the Census, *The Magnitude and Distribution of Civilian Employment in the U.S.S.R.: 1928-59*, by Murray S. Weitzman and Andrew Elias. International Population Reports, series P-95, No. 53, Washington, D.C., Foreign Manpower Research Office, Bureau of the Census, April 1961, table 2A, p. 53 (cited hereafter as Weitzman and Elias).

\* The unadjusted value for the individual peasants (see note 25) was subtracted from the total number of nonsocialized personnel. This was done in the belief that the Soviet Union did not use an annual average measurement standard for individual peasant employment but more likely a demographic count.

1953: The average of the 1950 and 1955 estimates.  
 1959: Census figure from TsSU pri Sovete ministrov SSSR, "On the Distribution of the U.S.S.R. Population by Social Group, Branch of the National Economy, and Occupation and On the Educational Level of Persons Performing Physical and Mental Labor," *Vestnik statistiki (Statistical Herald)*, No. 12, December 1959, pp. 4-5.

1950-62: In the absence of necessary information, assumed to be the same as for 1959.  
 \* According to a decree of the R.S.F.S.R. Council of Ministers dated Feb. 6, 1962, most occupations open to independent artisans were prohibited as of Apr. 1, 1962. Employment in this category, therefore, probably has become negligible since that time. See B. M. Piskov (compiler), *Sotsial'noye obespecheniye i strakhovaniye v SSSR, sbornik ofitsial'nykh dokumentov (Social Security and Insurance in the U.S.S.R., A Collection of Official Documents)*, Moscow, 1964, pp. 316-317.

\* Agricultural employment differs slightly in concept from nonagricultural employment in that agricultural employment, in addition to the annual average employment of persons by branch of agricultural economy, also includes a synthetic employment figure for kolkhoz industry, construction, and the work performed on the private agricultural plots of collective farmers and of workers and employees and their families. The figure for employment relating to private agricultural plots is derived, mainly, on the basis of labor input requirements for the care and the cultivation of private agricultural holdings, and represents a man-year equivalent employment concept based on 250 man-days per man-year.

\* Table VI-4. In 1958, machine tractor stations were reorganized into repair-technical stations and many of the tractors and other agricultural machines were sold to collective farms.

For purposes of consistency with pre-1953 and post-1958 data, the figures for 1953-58 were adjusted to remove collective farmers transferred to the employment rolls of machine tractor stations from collective farms following the October 1953 resolutions of the Communist Party and U.S.S.R. Government. These employment adjustments totaled 229,000 for 1953, 1,018,000 for 1955, 1,822,000 for 1956, 1,565,000 for 1957, and 500,000 for 1958. The values for 1955 and 1956 are believed to be somewhat overstated but the lack of additional information does not permit further refinement. See Weitzman and Elias, p. 134.

The 1953-58 estimates of collective farmers transferred to the rolls of machine tractor stations are included in this table in the estimate of annual average employment in the socialized sector of the collective farm economy. It should be noted that these adjustments of Soviet data were not made in table VI-4.

\* Table VI-9.  
 \* Estimate of the combined number of workers and employees and collective farmers in private sector in 1953 and 1954 is 11,122,000 and 11,400,000, respectively. See table VI-9.  
 \* 1940 and 1950: Sum of the components.

1953, 1955, 1958-60: *Nar. khoz. s 1950*, p. 521, adjusted for the years 1953-58 for the transfers described in note 15.

1955-57: TsSU pri Sovete ministrov SSSR, *Sel'skoye khozyaystvo SSSR, statisticheskiy sbornik (Agriculture of the U.S.S.R., A Statistical Compilation)*, Moscow, 1960, p. 450 (cited hereafter as *Sel. khoz.*).

1951-62: TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR s 1958 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1958, A Statistical Yearbook)*, Moscow, 1963, p. 368 (cited hereafter as *Nar. khoz. s 1958*).

1954: Assumed to be the same as in 1953.

\* Consists essentially of hunting and fishing.

1940 and 1950: Weitzman and Elias, table 2, p. 57.

1953-62: Difference between total employment in the socialized sector of collective farms and that in agricultural kolkhozy.

\* 1940 and 1950: Murray S. Weitzman, Murray Feshbach, and Lydia Kulchycka, "Employment in the U.S.S.R.: Comparative U.S.S.R.-U.S. Data," in Joint Economic Committee, Congress of the United States, *Dimensions of Soviet Economic Power*, Washington, 1962, table A-8, col. (6), p. 666.

1953, 1955, 1958-60: *Nar. khoz. s 1950*, p. 522.

1956, 1957: *Sel. khoz.*, p. 459.

1961-62: *Nar. khoz. s 1962*, p. 399.

\* 1940 and 1950: Weitzman, Feshbach, and Kulchycka, *loc. cit.*, column (6a), adjusted for agricultural employment in nonagricultural kolkhozy.

1953, 1955-59: *Sel. khoz.*, p. 459, adjusted for the transfers described in note 15 and for the agricultural employment in nonagricultural kolkhozy. The latter adjustment was made on the basis of the assumption that agriculture comprises only a small part of the economic activities on nonagricultural collective farms, arbitrarily set at 20 percent of total employment.

1950: *Nar. khoz. s 1950*, p. 521. See note immediately above.

1961-62: *Nar. khoz. s 1962*, pp. 398-399. See note for 1953, 1955-59, above.

\* The difference between total employment on agricultural collective farms and their agricultural employment (line II.B.1.b-[I.B.1.b.(1)]). Rounded.

\* Weitzman, Feshbach, and Kulchycka, *op. cit.*, table A-9, p. 667.

\* 1940 and 1950: In estimating annual average employment of individual peasants for 1940 and 1950, it was assumed that their participation in peasant agriculture per household was approximately equivalent to the number of labor force participants in collective farming per collective farm household. A second assumption involved the use of a constant peak month employment factor of 85 percent, which is taken to represent the proportion of individual peasants who participated at some time during the year in individual peasant agriculture.

1959: *Nar. khoz. s 1960*, p. 26.

1953, 1955-58, 1960-62: In estimating employment for years other than 1959, the 1959 census estimate of 92,000 was moved by the computed annual percent change in conventional man-year equivalent employment for individual peasants and other categories of population given in table VI-9.

1963-64: Assumed to be zero. See note to table VI-9.

TABLE VI-3.—Workers and employees, by branch of the national economy, U.S.S.R., selected years, 1928-64

(Employment figures are annual averages and are in thousands; NA indicates data not available and no estimate made)

Year	Total	Nonagri- cultural branches	Agri- cultural branches <sup>1</sup>	Year	Total	Nonagri- cultural branches	Agri- cultural branches <sup>1</sup>
1928 .....	10,790	9,055	1,735	1955 .....	48,380	41,634	6,746
1932 .....	22,601	19,553	3,048	1956 .....	50,537	44,032	6,505
1937 .....	26,744	23,887	2,857	1957 .....	53,148	45,978	7,170
1940 .....	31,192	28,216	2,976	1958 .....	54,005	46,043	7,962
1945 .....	27,263	NA	NA	1959 .....	56,809	50,219	6,590
1950 .....	28,895	25,014	3,881	1960 .....	62,032	54,550	7,482
1952 .....	42,204	38,049	4,155	1961 .....	65,861	57,645	8,216
1953 .....	43,660	39,218	4,442	1962 .....	68,300	59,692	8,608
1954 .....	47,800	NA	NA	1963 .....	70,531	61,788	8,743
				1964 .....	73,200	64,200	9,000

<sup>1</sup> No adjustment has been made for transfers of some of the collective farmers to the rolls of machine tractor stations between 1953-58, as was done in table 2. Includes forestry.Source: Unless otherwise indicated, tables 3 and 4 are based principally on the following:  
1928-58: U.S. Bureau of the Census, *The Magnitude and Distribution of Civilian Employment in the U.S.S.R., 1928-59*, by Murray S. Weltzman and Andrew Elias. International Population Reports, series P-95, No. 58, Washington, D.C., Foreign Manpower Research Office, Bureau of the Census, April 1961, pp. 55-68.1955, 60: TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskiy yezhgodnik* (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook), Moscow, 1961, pp. 216-217, 312, 626, 636-637, 708.1960-61: —, *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskiy yezhgodnik* (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook), Moscow, 1962, pp. 181-182, 540, 567-568, 650.1962, 1962: —, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhgodnik* (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook), Moscow, 1963, pp. 130, 446, 453-454, 530.1963: —, *Narodnoye khozyaystvo SSSR v 1963 godu, statisticheskiy yezhgodnik* (The National Economy of the U.S.S.R. in 1963, A Statistical Yearbook), Moscow, 1965, pp. 475-476, 537.1964: —, "On the Results of the Fulfillment of the State Plan for the Development of the U.S.S.R. National Economy in 1964," *Pravda*, January 30, 1965, p. 2, and —, *SSSR v tsifrakh v 1964 godu, Kratkiy statisticheskiy sbornik* (The U.S.S.R. in Figures in 1964, A Short Statistical Compilation), Moscow, 1965, pp. 119-120.

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Arti- cultural branches	Arti- cultural branches
4, 544	4, 544
0, 482	0, 482
7, 176	7, 176
4, 562	4, 562
4, 100	4, 100
7, 482	7, 482
8, 218	8, 218
8, 608	8, 608
8, 728	8, 728
8, 910	8, 910

## Rolls of machine

judgment in the  
Reports, series  
44, April 1961,

1961, pp. 216-

-55M, 050.

**(The Nationals)**

of the U.S.S.R.  
i godu, *Kraskiy*  
scow, 1965, pp.

[Employment figures are annual averages and are in thousands; figures in parentheses are estimated; NA indicates data not available and no estimate made; and leaders indicate inapplicable]

	1928	1932	1937	1940	1945	1950	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Total	10,790	22,601	20,744	31,192	27,263	38,595	42,204	43,690	47,300	48,360	50,537	53,148	54,605	56,500	62,032	65,961	68,300	70,526	73,200
Industry (industrial-production personnel)	3,778	8,000	10,112	10,067	9,508	14,144	15,556	16,261	17,016	17,367	18,500	19,144	19,678	20,207	22,291	23,475	24,297	25,057	
Construction (construction-installation personnel)	723	2,289	1,570	1,593	1,515	2,509	2,788	2,843	3,179	3,190	3,550	4,000	4,421	4,800	5,143	5,270	5,150	5,238	
Agriculture	1,735	3,048	2,857	2,976	N/A	3,881	4,135	4,442	N/A	0,516	0,485	7,170	0,562	0,190	7,482	8,218	8,608	8,737	
Sovkhoz and other state agricultural establishments	345	2,259	1,748	1,760	2,147	2,425	2,533	2,552	2,639	2,822	2,925	3,001	4,614	4,957	6,324	7,366	7,730	7,874	
MTS/RTS		144	566	530	385	678	704	1,118	(2,906)	3,015	2,880	2,554	1,219	469	348	3	0	0	
Unspecified agricultural establishments	1,315	645	295	407	N/A	334	395	350	N/A	200	200	278	362	412	451	469	489	463	
Forestry	75	100	248	279	N/A	444	402	416	N/A	369	350	377	307	352	270	378	389	309	
Transport and communications	1,385	2,241	3,026	3,903	3,537	4,624	5,160	5,352	N/A	5,650	5,840	5,996	6,332	6,663	7,017	7,308	7,609	7,718	48,300
Transport	1,270	2,017	2,651	3,425	3,111	4,082	4,595	4,770	N/A	5,039	5,216	5,355	5,668	5,972	6,279	6,518	6,677	6,841	
Railroad transport	951	1,297	1,512	1,752	1,841	2,068	2,232	2,275	2,321	2,302	2,307	2,323	2,330	2,338	2,314	2,311	2,295	2,301	
Water transport	104	146	180	203	190	222	244	260	N/A	285	300	317	320	317	322	327	327	327	
Motor vehicle, urban electrical and other transport; freight handling; and road economy	195	874	959	1,470	1,080	1,792	2,119	2,235	N/A	2,452	2,609	2,715	3,018	3,317	3,679	3,889	4,055	4,213	
Communications	95	224	375	478	426	542	565	582	(505)	611	624	641	664	691	738	760	832	877	
Trade, procurement, material-technical supply and sube. and public dining	(883)	(2,184)	(2,506)	3,303	2,462	3,825	3,495	3,463	(3,668)	3,725	3,826	4,017	4,100	4,340	4,775	5,010	5,253	5,487	
Trade, procurement, and material-technical supply and sales	1 (528)	1 (1,551)	1 (2,038)	2,519	1,747	2,666	2,775	2,608	2,848	2,860	2,935	3,060	3,231	3,374	3,574	3,832	4,018	4,181	
Retail trade	N/A	855	1,294	1,382	N/A	1,306	1,435	1,404	1,519	1,674	1,698	1,730	1,884	2,070	2,227	2,463	2,592	2,685	
Wholesale trade	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	(216)	(221)	(219)	(267)	(280)	(283)	
Material-technical supply and sales	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	(537)	(591)	(626)	(612)	(617)	N/A	
Procurement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	(541)	(517)	(462)	(444)	(492)	N/A	
Public dining	55	633	471	784	715	659	720	765	820	856	891	928	959	991	1,020	1,138	1,238	1,306	

See footnotes at end of table, p. 73.

TABLE VI-4.—Workers and employees, by branch of the national economy, U.S.S.R., selected years, 1928-64—Continued

[Employment figures are annual averages and are in thousands; figures in parentheses are estimated; NA indicates data not available and no estimate made; and leaders indicate inapplicable]

	1928	1932	1937	1940	1945	1950	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Public health and education.....	1,206	2,106	3,493	4,531	NA	6,080	6,608	6,815	NA	7,607	7,933	8,350	8,775	9,275	10,027	10,853	11,532	12,128	
Public health.....	399	669	1,127	1,507	1,419	2,051	2,226	2,398	NA	2,627	2,786	2,892	3,059	3,245	3,461	3,677	3,818	3,933	
Education.....	807	1,437	2,368	3,024	NA	4,029	4,382	4,507	NA	4,980	5,197	5,458	5,716	6,030	6,566	7,176	7,734	8,205	
Educational institutions.....	725	1,292	2,089	2,663	2,851	3,315	3,553	3,647	NA	3,968	4,103	4,250	4,378	4,554	4,803	5,165	5,521	5,835	
Science.....	82	145	279	361	714	714	829	860	NA	992	1,094	1,208	1,339	1,474	1,763	2,011	2,213	2,370	12,800
Of which—																			
Geological prospecting.....	10	23	30	70	NA	245	NA	320	NA	350	379	382	398	NA	NA	NA	NA	NA	
Hydrometeorological services.....	8	12	15	24	NA	82	NA	39	NA	42	42	45	47	NA	NA	NA	NA	NA	
"Other branches".....	1,405	2,733	2,169	3,949	NA	4,272	4,442	4,484	NA	4,205	4,403	4,471	4,650	4,985	5,397	5,729	5,931	6,151	NA
Housing-communal economy.....	147	601	1,023	1,221	NA	1,210	1,315	1,345	NA	1,400	1,503	1,579	1,632	1,713	1,920	2,030	2,096	2,182	(?)
Administrative organs.....	1,010	1,650	1,488	1,825	1,645	1,831	1,786	1,726	NA	1,361	1,342	1,294	1,244	1,273	1,245	1,205	1,316	1,308	
State and economic administrative organs.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	(1,225)	NA	NA	(1,165)	(1,146)	(1,120)	(1,166)	(1,184)	NA	
Administrative organs of cooperative and social organizations.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	(134)	NA	NA	(129)	(127)	(124)	(130)	(132)	NA	
Credit and insurance organizations.....	85	128	193	262	197	264	202	253	NA	203	260	261	260	260	263	277	283	286	
Other residual.....	163	294	465	641	NA	967	1,079	1,150	NA	1,239	1,292	1,337	1,404	1,739	1,967	2,027	2,236	2,372	4,000
Capital repair of buildings and structures.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(740)	(766)	NA	
Drilling.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(130)	(142)	NA	
Project-survey organizations.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(430)	(407)	NA	
Literature and publishing.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(90)	(75)	NA	
Art.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(315)	(312)	NA	
Other unidentified.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(425)	(477)	NA	

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CURRENT ECONOMIC INDICATORS FOR THE U.S.R.

Source: See source note to table VI-3.



TABLE VI-5.—Industrial-production personnel and wage workers, by branch of industry, U.S.S.R., selected years, 1940-63

[Employment figures are annual averages and are in thousands; leaders (.....) indicate data not available and no estimate made; figures in parentheses are estimated]

Branch of industry	1940	1950	1952	1953	1955	1956	1957	1958	1959	1960	1961	1962	1963 <sup>1</sup>
Total:													
Industrial-production personnel <sup>a</sup> .....	10,067	14,144.0	15,556	16,261.0	17,387.0	18,500.0	19,144.0	19,675.0	20,207.0	22,791.0	23,472.0	24,297.0	25,057
Wage workers.....	8,200	11,206.0	12,474	13,179.0	14,281.0	15,226.0	15,780.0	16,279.0	16,763.0	18,374.0	19,548.0	20,176.0	20,760
Machine-building and metal-working, including repair enterprises:													
Industrial-production personnel.....													8,742
Wage workers.....													8,938
Machine-building and metal-working:													
Industrial-production personnel.....	12,395	13,216.0	13,581	13,837.0	14,256.0	14,539.0	14,736.0	14,932.0	15,149.0	15,663.0	16,207.0	16,366.0	
Wage workers.....													
Repair enterprises:													
Industrial-production personnel.....													
Wage workers.....													
Fuel:													
Industrial-production personnel.....													
Wage workers.....													
Coal:													
Industrial-production personnel.....													
Wage workers.....													
Oil extraction and refining:													
Industrial-production personnel.....	430	732.0	763	783.0	897.0	966.0	1,021.0	1,256.2	1,245.4	1,196.3	1,161.8	1,161.8	1,158
Wage workers.....													
Oil extraction:													
Industrial-production personnel.....	45	90.0	102	107.0	122.0	125.0	128.0	174.5	173.3	178.3	182.2	182.2	183
Wage workers.....													
Oil refining:													
Industrial-production personnel.....	23	53.0						88.0	85.4	85.0	82.8	82.8	
Wage workers.....								68.0	68.0	67.0	67.0	67.0	
Oil refining:													
Industrial-production personnel.....	17	(37.0)						88.8	87.9	93.3	98.7	98.7	
Wage workers.....								70.0	70.0	72.0	72.0	72.0	
Gas extraction and refining:													
Industrial-production personnel.....								18.1	17.6	18.2	18.6	18.6	18.6
Wage workers.....													
Gas extraction:													
Industrial-production personnel.....													
Wage workers.....													
Gas refining:													
Industrial-production personnel.....													
Wage workers.....													
Peat:													
Industrial-production personnel.....								172.7	158.1	141.0	128.3	128.3	
Wage workers.....													
Other:													
Industrial-production personnel.....								(22.8)	(22.8)	(23.4)	(23.4)	(23.4)	

**CURRENT ECONOMIC INDICATORS FOR THE U.S.**

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See footnotes at end of table, p. 79.

TABLE VI-5.—Industrial-production personnel and wage workers, by branch of industry, U.S.S.R., selected years, 1940-63—Continued

[Employment figures are annual averages and are in thousands; leaders (.....) indicate data not available and no estimate made; figures in parentheses are estimated]

Branch of industry	1940	1950	1952	1953	1955	1956	1957	1958	1959	1960	1961	1962	1963 <sup>1</sup>
<b>Food:</b>													
Industrial-production personnel								12 2,068.1	12 2,089.8	12 2,140.0	12 2,241.3	12 2,307.5	12 2,349.0
Wage workers	1 1,049	1 1,232.0	1 1,323	1 1,398.0	1 1,478.0	1 1,579.0	1 1,645.0	1 1,662.0	1 1,683.0	1 1,743.0	1 1,827.0	1 1,884.0	1 1,919
<b>Sugar:</b>													
Industrial-production personnel		12 122.0				12 141.0		12 164.7	12 163.6	12 170.4	12 197.5	12 185.2	
Wage workers								12 (145.0)					
<b>Meat:</b>													
Industrial-production personnel		12 117.0				12 148.0		12 199.4	12 218.0	12 228.3	12 244.1	12 267.4	
Wage workers		12 76.3				12 117.9						12 207.0	
<b>Fishing:</b>													
Industrial-production personnel								12 251.1	12 250.7	12 251.1	12 257.8	12 265.4	
Wage workers													
<b>Milk and milk products:</b>													
Industrial-production personnel								12 249.1	12 246.9	12 245.4	12 252.3	12 261.1	
Wage workers													
<b>Vegetable oils:</b>													
Industrial-production personnel								12 64.3	12 69.8	12 66.6	12 62.4	12 72.4	
Wage workers													
<b>Flour milling and grain cracking:</b>													
Industrial-production personnel								12 131.8	12 127.7	12 126.3	12 126.5	12 127.1	
Wage workers													
<b>Baking:</b>													
Industrial-production personnel								12 393.4	12 406.7	12 419.9	12 440.3	12 463.9	
Wage workers													
<b>Candy and confectionery products:</b>													
Industrial-production personnel		12 82.0				12 89.0		12 113.8	12 115.9	12 120.1	12 131.2	12 135.0	
Wage workers													
<b>Macaroni:</b>													
Industrial-production personnel								12 23.2	12 22.2	12 24.1	12 22.9	12 22.2	
Wage workers													
<b>Fruits and vegetables:</b>													
Industrial-production personnel								12 141.4	12 140.6	12 142.4	12 153.9	12 162.8	
Wage workers													
<b>Starch and sirup:</b>													
Industrial-production personnel								12 16.4	12 15.6	12 16.5	12 17.5	12 16.6	
Wage workers													
<b>Tobacco, makhorka:</b>													
Industrial-production personnel								12 36.8	12 36.0	12 33.9	12 32.9	12 31.7	
Wage workers													
<b>Other (alcohol, canning, wines, beer, nonalcoholic drink, tea, other food products, perfumes and cosmetics, salt):</b>													
Industrial-production personnel								1 (280.7)	1 (276.1)	1 (285.0)	1 (294.0)	1 (305.7)	
Wage workers													

	1970	1971	1972	1973	1974
Wage workers.....					
Other (alcohol, smoking, wines, beer, nonalcoholic drink, tea, other food products, perfumes and cosmetics, salt):					
Industrial-production personnel.....					
Wage workers.....	1 (250.7)	1 (276.1)	1 (285.0)	1 (294.6)	1 (303.7)

[illegible]

See footnotes at end of table, p. 79.

TABLE VI-5.—Industrial-production personnel and wage workers, by branch of industry, U.S.S.R., selected years, 1940-63—Continued

(Employment figures are annual averages and are in thousands; leaders (.....) indicate data not available and no estimate made; figures in parentheses are estimated)

Branch of industry	1940	1950	1952	1953	1955	1956	1957	1958	1959	1960	1961	1962	1963 <sup>1</sup>
Light—Continued													
Leather, fur, and shoes—Continued													
Leather luggage and haberdashery goods:													
Industrial-production personnel.....								10 29.7	10 30.7	10 49.9	10 51.3	10 53.4	
Wage workers.....													
Fur:													
Industrial-production personnel.....								10 39.4	10 39.2	10 47.1	10 50.1	10 51.6	
Wage workers.....													
Shoe (including rubber shoes):													
Industrial-production personnel.....								10 333.9	10 251.8	482.2	494.2	503.4	
Wage workers.....													
Other:													
Industrial-production personnel.....								7 (14.9)	7 (12.4)	7 (18.7)	7 (19.5)	7 (21.6)	
Wage workers.....													
Other (including tanning?):													
Industrial-production personnel.....								7 (9.2)	7 (7.8)	7 (19.4)	7 (14.0)	7 (16.6)	
Wage workers.....													
Construction materials:													
Industrial-production personnel.....								10 1,217.5	10 1,316.3	10 1,493.4	10 1,575.5	10 1,597.5	1,553
Wage workers.....	7 252	7 347.0	7 649	7 720.0	7 830.0			7 1,072.0	7 1,162.0	7 1,310.0	7 1,375.0	7 1,383.0	1,364
Cement:													
Industrial-production personnel.....								10 69.5	10 77.3	10 83.1	10 98.5	10 94.7	
Wage workers.....	7 (20)	10 33.5			7 (42.0)	7 (44.0)	7 (48.0)	10 51.2	7 (57.0)	10 59.4	10 61.5	10 63.2	
Lime, gypsum (alabaster), and other local binding materials:													
Industrial-production personnel.....								10 60.1	10 67.7	10 76.3	10 71.1	10 68.9	
Wage workers.....													
Wall materials (including bricks) and tiles:													
Industrial-production personnel.....								10 429.2	10 430.6	10 515.5	10 517.6	10 492.3	
Wage workers.....													
Prefabricated reinforced concrete, concrete structures, and parts:													
Industrial-production personnel.....								10 327.3	10 401.2	10 484.1	10 564.5	10 552.7	
Wage workers.....													
Asbestos-cement goods:													
Industrial-production personnel.....								10 14.0	10 14.4	10 15.6	10 17.7	10 15.6	
Wage workers.....													
Soft roofing materials:													
Industrial-production personnel.....								10 5.7	10 6.4	10 11.0	10 11.2	10 12.1	
Wage workers.....													



Soft roofing materials:												
Industrial production personnel												
Wage workers							11.7	11.4	11.0	11.2	11.1	11.2

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Extraction and processing of non-metallic construction materials and light aggregates:										
Industrial-production personnel.....						10 173.1	11 167.4	10 181.2	10 189.8	10 184.6
Wage workers.....										
Other:										
Industrial-production personnel.....						7 (129.6)	7 (123.3)	7 (110.7)	7 (126.9)	7 (136.0)
Wage workers.....										
Glass and chinaware:										
Industrial-production personnel.....						10 208.6	10 215.4	10 226.3	10 234.8	10 241.0
Wage workers.....						* 181.0				241.0
Glass:										
Industrial-production personnel.....						10 163.2	10 184.6	10 170.8	10 183.9	10 189.1
Wage workers.....										
Chinaware and glazed pottery:										
Industrial-production personnel.....						10 45.4	10 46.8	10 49.5	10 50.9	10 51.9
Wage workers.....										
Electric power:										
Industrial-production personnel.....										
Wage workers.....						* 222.0		* (247.0)		
Printing:										
Industrial-production personnel.....										
Wage workers.....						** 185.0				
						** 125.0		** 141.3		
								** 163.5		

\* (Includes employment in the basic production activity of all personnel categories: wage workers, engineering-technical personnel, salaried employees, apprentices, minor service personnel, and guard. This does not include employment in nonindustrial activities in industrial enterprises, such as housing, education, personal services, and public health.)

1. "Statistical Materials," *Vestnik statistiki (Statistical Herald)*, No. 8, August 1904, p. 87.

<sup>1</sup> TsSU pri Sovete ministrov RSBR, *Promyshlennost' SSSR, statisticheskiy sbornik* (Industry of the U.S.S.R., A Statistical Compilation), Moscow, 1964, pp. 84-85. (Cited hereafter as *Prom. SSSR*.)

<sup>10</sup> ———, *Narodnoye khozyaystvo SSSR v 1963 godu, statisticheskiy gerzegodnik* (The National Economy of the U.S.S.R. in 1963. A Statistical Yearbook). Moscow, 1963, p. 122.

<sup>1</sup> Joint Economic Committee, Congress of the United States, *Annual Economic Indicators for the U.S.S.R.*, Washington, 1964, table V-A-7, pp. 56-57.

<sup>1</sup> *Ibid.*, table V-A-6, p. 63.

<sup>4</sup> Sum of the components.

<sup>1</sup> *Ibid.*, p. 201.

18. A. Khaynman, "On the Scale and Factors of Labor Productivity Growth," in *Akademicheskaya nauka SSSR, Institut ekonomiki, Problemy politicheskoy ekonomiki*

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<sup>11</sup> A. N. Yefimov et al. (editors), *Ekonomicheskaya entsiklopediya, Promyshlennost i stroitel'stvo* (Economic Encyclopedia, Industry and Construction), vol. 1, Moscow, 1962, col. 384.

<sup>12</sup> Ye. V. Vasil'yeva, *Razvivayemye plachetkovy promyshlennosti i ekonomiya obshchestvennogo*

truda v SSSR (Development of the Food Industry and Economizing of Socialized Labor in the U.S.S.R.), Moscow, 1962, p. 86.

<sup>14</sup> Estimated from a reported ratio (88.4 percent) of wage workers to industrial-production personnel, given in A. N. Yefimov et al. (editors), *Ekonomicheskaya entsiklopediya*.

Promyshlennost' i Stroitel'stvo (Economic Encyclopedia, Industry and Construction), vol. 2, Moscow, 1964, col. 921.

118. S. S. Shnitser, *Reserves for labor productivity growth in the meat industry* (Reserves for Labor Productivity Growth in the Meat Industry), Moscow, 1963, pp. 37 and 42.

<sup>11</sup> S. A. Kheynman, *Ekonomicheskiye problemy organizatsii promyshlennogo proizvodstva*

<sup>11</sup> From, SSSR, p. 314.

01. I. Kholin (editor), *Spravochnik po proizvodstvu tsementa (Handbook on Cement Production)*. Issued by the Gosudarstvennyy komitet po promyshlennosti stroitel'nykh

\* Average numbers in 1948. As of Mar. 1, 1949, there are reported to have been 189,970

Industrial-production personnel), including 130,570 wage workers, in this industry. See N. I. Burlyakov, *Voprosy planirovaniya pekhati v SSSR* (Questions of Planning

<sup>21</sup> *Ekon. entslt.* . . . vol. 2, *op. cit.*, col. 551.

2. Exhib. 10001. Vol. 2, pp. 111, Vol. 331.

TABLE VI-6.—Average number of days and hours worked in industry by wage workers, U.S.S.R., selected years, 1928-63

[Figures in parentheses are estimated; NA indicates data not available and no estimate made]

	1928	1932	1937	1940	1950	1952	1955	1956	1957	1958	1959	1960	1961	1962	1963
1. Number of calendar days.....	366.0	366.0	365.0	366.0	365.0	366.0	365.0	366.0	365.0	365.0	365.0	366.0	365.0	365.0	365.0
Less: days off and holidays.....	62.3	67.1	60.8	64.0	55.5	55.8	55.5	56.9	NA	57.7	58.2	59.3	60.8	61.0	61.3
2. Number of calendar days, less days off and holidays.....	303.7	298.9	298.2	302.0	309.5	310.2	309.5	309.1	NA	307.3	306.8	306.7	304.2	304.0	303.7
Less: paid regular leave.....	14.2	15.1	13.7	13.0	14.9	15.4	16.0	16.0	NA	16.9	17.2	17.4	17.3	17.6	17.6
3. Maximum number of workdays.....	289.5	283.8	284.5	289.0	294.6	294.8	293.5	293.1	291.0	290.4	289.6	289.3	286.9	286.4	286.1
Less: sick, maternity, and administrative leave.....	18.9	19.4	21.8	17.5	17.4	18.9	19.3	20.0	22.7	21.5	22.4	21.7	22.0	22.3	20.9
Of which:															
Sick and maternity leave, paid out of social insurance account.....	15.3	14.2	17.6	13.9	13.4	14.4	13.7	14.6	NA	16.1	17.5	16.6	16.9	17.0	15.8
Administrative leave (authorized by law and by plant administration).....	3.6	5.2	4.2	3.6	4.0	4.5	5.6	5.4	NA	5.4	4.9	5.1	5.1	5.3	5.1
Less: other absences (absences without reason and whole-day plant work stoppage).....	7.6	7.2	2.4	1.7	.9	1.1	.9	1.0	.9	.9	.7	.7	.7	.7	.7
4. Actual average number of days worked (including intrashift work stoppages).....	263.0	257.2	260.3	269.8	278.3	274.8	273.2	272.1	267.4	268.0	269.5	268.9	264.2	263.4	264.5
(1950=100).....	95.2	93.1	94.2	97.6	100.0	99.5	98.9	98.5	96.8	97.0	98.6	96.6	93.6	93.3	95.7
5. Annual average number of wage workers (thousands).....	3,124.0	6,007.0	7,924.0	8,290.0	11,308.0	12,474.0	14,281.0	15,226.0	15,780.0	16,279.0	16,703.0	18,574.0	19,648.0	20,178.0	20,690.0
(1950=100).....	27.6	53.1	70.1	73.3	100.0	110.3	126.3	134.6	139.4	144.0	148.5	164.3	172.9	178.4	182.9
6. Estimated annual number of man-days worked in industry by wage workers (millions) (line 4 X line 5).....	(821.6)	(1,545.0)	(2,062.6)	(2,236.0)	(3,124.4)	(3,427.9)	(3,903.0)	(4,143.0)	(4,214.2)	(4,362.8)	(4,478.3)	(4,937.4)	(5,164.6)	(5,314.4)	(5,469.9)
(1950=100).....	26.3	49.4	66.0	71.6	100.0	109.7	124.9	132.6	134.9	139.6	143.2	158.7	163.3	167.1	173.1
7. Reported average scheduled number of man-hours worked per day per wage worker in industry (excluding overtime).....	7.81	6.99	7.0	8.0	8.0	8.0	8.0	7.90	7.90	7.70	7.58	6.94	6.83	6.92	6.93
(1950=100).....	97.6	87.4	87.5	100.0	100.0	100.0	100.0	99.5	98.8	96.2	94.5	88.8	88.6	88.8	88.6
8. Estimated annual number of man-hours worked in industry by wage workers (billions) (line 6 X line 7).....	(6.4)	(10.8)	(11.4)	(17.9)	(25.0)	(27.4)	(31.2)	(33.0)	(33.3)	(33.6)	(33.8)	(34.4)	(35.8)	(36.8)	(37.9)
(1950=100).....	25.7	43.2	57.8	71.6	100.0	108.7	124.9	131.9	133.2	134.4	135.3	137.6	143.2	147.5	151.6

(1950=100).....	97.6	87.4	87.8	100.0	100.0	100.0	100.0	99.5	98.8	98.2	94.5	86.8	86.6	86.6	86.6	S.R.
8. Estimated annual number of man-hours worked in indus- try by wage workers (bil- lions) (line 6 X line 7).....	(6.4)	110.8	(14.4)	(17.9)	(25.0)	(27.4)	(31.2)	(33.0)	(33.3)	(33.6)	(33.8)	(34.4)	(35.6)	(36.8)	(37.9)	
(1950=100).....	25.7	43.2	67.8	71.6	100.0	109.7	124.9	131.9	133.2	134.4	135.3	137.6	143.2	147.3	151.6	

Source: Worktime data:

A. Man-days:

1928-50, 1955-56: *Vestnik statistiki (Statistical Herald)*, No. 2, February 1957, p. 91.

1957: Nauchno-issledovatel'skiy institut truda i gosudarstvennogo komiteta Soveta ministrov SSSR po voprosam truda i zarabotnoy platy *Trudovyye resursy SSSR (Problems of Distribution and Utilization)*, edited by N. I. Shishkin, Moscow, 1961, p. 69.

1952, 1958-62: TsSU pri Sovete ministrov SSSR *Narodnaya khozyaystvo SSSR v 1952 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1952, A Statistical Yearbook)*, Moscow, 1953, p. 131. (Cited below as *Nar. khoz. v 1952*.)

1963: *Promyshlennost' SSSR, statisticheskiy sbornik (Industry of the U.S.S.R., A Statistical Compilation)*, Moscow, 1964, p. 87.

B. Man-hours:

1928 and 1932: TsUNKGO *Gosplana SSSR Statisticheskaya stroitel'stvo SSSR, statisticheskiy yezhegodnik (Socialist Construction of the U.S.S.R., A Statistical Yearbook)*, Moscow, 1934, p. 337. For March 1928 and Sept. 1, 1933. Large-scale industry.

1937, 1940, 1950, 1952, 1953: A. I. Protseviskiy, *Rabocheye vremya i rabochiy den' po sovetomuyu trudovomu prazu (Worktime and Workday According to Soviet Labor Law)*, Moscow, 1953, p. 59.

1950, 1963: TsSU pri Sovete ministrov SSSR. *SSSR v tsifrakh v 1963*

*godu, kratkiy statisticheskiy sbornik (The U.S.S.R. in Figures in 1963, A Short Statistical Compilation)*, Moscow, 1964, p. 179.

1957: *SSSR v tsifrakh, statisticheskiy sbornik (The U.S.S.R. in Figures, A Statistical Compilation)*, Moscow, 1958, p. 420.

1958: *Narodnaya khozyaystvo SSSR v 1958 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1958, A Statistical Yearbook)*, Moscow, 1959, p. 945. End of 1958.

1959: *Narodnaya khozyaystvo SSSR v 1959 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1959, A Statistical Yearbook)*, Moscow, 1960, p. 990. End of 1959.

1960: *Narodnaya khozyaystvo SSSR v 1960 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook)*, Moscow, 1961, p. 645. End of 1960.

1961: *Narodnaya khozyaystvo SSSR v 1961 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook)*, Moscow, 1962, p. 602. As of Mar. 31.

1962: *Nar. khoz. v 1962*, p. 485.

*Employment*: Joint Economic Committee, *Annual Economic Indicators for the U.S.S.R.*, Washington, 1964, table V-A-6, p. 53; U.S. Bureau of the Census, *The Magnitude and Distribution of Civilian Employment in the U.S.S.R.: 1928-59*, by Murray S. Weitzman and Andrew Elius, International Population Reports, series P-45, No. 58, Washington, April 1961, p. 61; and TsSU pri Sovete ministrov SSSR *Promyshlennost' SSSR, statisticheskiy sbornik (Industry of the U.S.S.R., A Statistical Compilation)*, Moscow, 1964, pp. 84-85.

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TABLE VI-7.—Soviet comparisons of physical output per production worker in selected industries, United States and U.S.S.R., selected years, 1939-59

[U.S. level=100; NA indicates data not available]

Industry (products)	(1)	(2)	(3)	(4)	(5)		(6)
	U.S.S.R. 1940; U.S. 1939	U.S.S.R. 1950; U.S. 1947	U.S.S.R. 1955; U.S. 1954	U.S.S.R. 1955; U.S. 1954	U.S.S.R. 1957; U.S. 1956		U.S.S.R. 1959; U.S. 1955
					(a)	(b)	
<b>Ferrous metallurgy:</b>							
Pig iron, steel, and rolled products	48.3	41.8	54.6	49.1	53.0	51.5	59.7
Steel and rolled products	44.4	41.0	52.9	47.3	51.1	49.7	59.9
Steel	46.3	43.2	54.7	48.7	53.2	51.9	62.4
Rolls products	41.7	38.2	49.7	45.5	48.4	46.9	50.7
Iron ore	36.6	25.9	41.6	43.9	37.3	36.4	35.1
Coke	33.7	30.0	46.1	49.1	42.4	41.4	48.6
Coal	51.3	31.8	35.9	36.3	28.2	28.8	32.0
Of which:							
Underground mining	53.7	34.7	36.7	40.3	28.6	28.6	32.1
Open-pit mining	41.7	47.4	70.5	98.0	78.2	76.2	94.8
Petroleum refining (benzine, kerosene, ligroine, and diesel fuel)	48.2	41.0	37.0	43.4	42.1	42.1	46.2
Metal-cutting machine tools	NA	47.3	74.9	74.4	69.5	69.5	62.0
Synthetic rubber	NA	18.6	17.5	17.6	15.6	15.6	12.1
Artificial fiber	23.4	11.9	17.4	18.5	19.8	19.8	20.4
Logging	29.1	26.3	32.2	28.9	30.7	34.1	30.9
Lumber	55.9	66.5	67.6	63.1	73.8	73.8	75.4
Paper and paperboard	39.8	33.3	39.7	42.1	39.6	39.6	44.4
Cement	22.8	28.1	34.3	35.5	32.9	32.9	34.2
Construction brick	45.5	35.7	42.7	43.5	46.2	46.2	47.2
Lime and gypsum	27.1	17.4	21.6	22.6	22.0	22.0	24.5
Cotton fabrics	39.7	34.7	41.3	37.7	38.5	38.2	42.1
Woolen fabrics	50.3	45.2	45.6	45.1	41.5	42.5	41.6
Silk and synthetic fabrics	16.5	14.4	27.7	38.0	42.3	41.9	37.3
Footwear (excluding rubber)	33.1	37.5	41.4	44.5	44.0	44.0	51.3
Rubber footwear	67.4	126.1	81.0	79.9	78.9	78.9	72.0
Meat (including 1st category sub- products)	45.7	41.1	45.2	53.2	46.5	46.5	57.0
Dairy products	29.8	29.8	43.4	53.0	53.1	52.2	50.0
Vegetable oil	57.1	39.8	34.9	30.3	27.5	27.5	30.0
Flour	40.1	39.0	60.4	60.7	60.8	60.9	57.0
Macaroni	52.6	66.3	57.2	51.9	55.3	55.3	61.0
Bread and bakery products	185.1	153.3	151.6	147.4	143.5	143.6	135.0
Confectionery products	57.9	52.7	51.8	52.1	46.5	46.5	48.0
Beer	26.8	25.0	23.2	25.7	27.6	27.6	41.0
Margarine	NA	NA	NA	17.1	NA	NA	N

Source, by columns, follows:

Cols. 1, 2, 3, 5(b), 6: A. I. Kats, *Proizvoditel'nost' truda v SSSR i glavnykh kapitalisticheskikh stro* (Labor Productivity in the U.S.S.R. and in the Main Capitalist Countries), Moscow, 1964, p. 149.Col. 4: — "A Comparison of the Level of Labor Productivity in U.S.S.R. Industry and in the Main Capitalist Countries," *Sotsialisticheskii trud* (Socialist labor), No. 1, January 1959, pp. 45-47.Col. 5a: — "A Comparison of the Level of Labor Productivity in U.S.S.R. Industry and in the Main Capitalist Countries," in V. A. Zhurav (Ed.), *Ekonomicheskoye sroverennost'ye sotsializma s kapitalizmom* (Economic Competition of Socialism With Capitalism), Moscow, 1962, pp. 200-201. For a Soviet analysis of these data, see Gertrude Schroeder, "Soviet Industrial Labor Productivity," in U.S. Congress, Joint Economic Committee, *Dimensions of Soviet Economic Power*, Washington, 1962, pp. 137-162.

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T)

Year	Number of collective farmers who participated in the socialized economy during the year (thousands)	
	Total	Of which able-bodied
	(1)	(2)
1937.....	40,716	35,90
1940.....	42,673	31,92
1950.....	39,837	28,60
1951.....	38,371	N/
1952.....	37,487	N/
1953.....	38,200	26,76
1954.....	37,603	27,26
1955.....	40,044	28,41
1956.....	38,450	29,38
1957.....	NA	27,69
1958.....	38,482.1	27,69
1959.....	33,411.1	26,16
1960.....	32,300	23,62
1961.....	30,400	21,90
1962.....	29,659	21,20
1963.....	NA	N/

Footnotes on following pages.

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noted, however, that in 1959 the 9,242,300 actual non-able-bodied farmers (col. 1 minus col. 2) convert to less than half the number, or 4,531,000 able-bodied equivalent farmers (col. 15 minus col. 2).

\* U.S. Bureau of the Census, *The Magnitude and Distribution of Civilian Employment in the U.S.S.R.: 1928-1959*, by Murray S. Weitzman and Andrew Elias, International Population Reports, series P-95, No. 58, Washington, D.C., Foreign Manpower Research Office, Bureau of the Census, April 1961, table C-1, p. 142 (cited hereafter as Weitzman and Elias).

\* Estimated from total money income of collective farms and average money income per one able-bodied collective farmer who worked on the collective farm. A. Arina, "Collective Farms in 1958 (From Materials of the Collective Farm Annual Reports)", *Sotsialisticheskoye sel'skoye khozyaystvo* (Socialist Agriculture), No. 12, December 1959, p. 64.

\* Percentages shown relate to total number of on-hand able-bodied collective farmers at end of year, including both those who did and those who did not participate in the socialized economy. M. I. Fedorova, *Ukrepivshie obshchestvennogo khozyaystva kolhozov i izmeneniya v politiku zapolnook sel'skokhozyaystvennykh produktov v mirovyye gody tre't'ey pyatiletki. Lektsiya* (Strengthening the Socialized Economy of Collective Farms and Changes in the Policy of Procurement of Agricultural Products During the Peaceful Years of the Third Five-Year Plan, Lectures), Moscow, 1960, p. 34. See also p. 24 defining these data as pertaining to able-bodied collective farmers.

\* Weitzman and Elias, table C-2, p. 143. Average number of labor-days for the prewar period relate to all farmers 16 years of age and over; data for the postwar period relate to current definition of able-bodied collective farmers. See footnote 1.

\* Col. 5 divided by col. 13.

\* TsUNKhU Gosplana SSSR, *Proizvoditel'nost' i ispol'zovanie truda v kolhozakh vo vtoroy pyatiletke* (Productivity and Utilization of Labor in Collective Farms in the Second Five-Year Plan), Moscow-Leningrad, 1930, p. 83.

figure for 1951 relates to May; the figures for 1950, 1953, and 1957 exclude able-bodied farmers working in industry, transport, etc.

\* TsSU pri Sovete ministrov SSSR, *Sel'skoye khozyaystvo SSSR, statisticheskiy sbornik* (Agriculture of the U.S.S.R., A Statistical Compilation), Moscow, 1960, p. 450 (cited hereafter as Sel'khoz.). See also footnote 13.

\* G. O. Bavlir'yan and A. K. Pychev (eds.), *Ekonomika sotsialisticheskogo sel'skogo khozyaystva* (Economics of Socialist Agriculture), Moscow, 1962, p. 191.

\* Nauchno-issledovatel'skiy institut truda Gosudarstvennogo komiteta Soveta ministrov SSSR po voprosam truda i zarabotnoy platy, *Trudovyye resursy SSSR (Problemy raspredeleniya i ispol'zovaniya)* (Labor Resources of the U.S.S.R. [Problems of Distribution and Utilization]), edited by N. I. Shishkin, Moscow, 1961, p. 97 (cited hereafter as Shishkin).

\* Shishkin, p. 108. See also footnote 7.

\* Sel'khoz., p. 459. See also Shishkin, p. 109.

\* TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1958 godu, statisticheskiy yezhgodnik* (The National Economy of the U.S.S.R. in 1958, A Statistical Yearbook), Moscow, 1959, p. 495.

\* A. A. Kastorin, *Nekotoryye voprosy ekonomiki i organizatsii sel'skogo khozyaystva S.S.S.R.* (Some Problems in the Economics and Organization of U.S.S.R. Agriculture), Moscow, 1961, p. 86.

\* Akademiya nauk SSSR, Institut ekonomiki, *Voprosy organizatsionno-khozyaystvennogo utverzhdeniya kolhozov* (Problems of Organizational and Economic Strengthening of Collective Farms), edited by V. P. Dyachenko et al., Moscow, 1957, p. 244. This source also reports an average of 65-70 labor-days per one overaged farmer in 1953-1954 (p. 247) and an average of 133 labor-days per one overaged farmer in 1954 (p. 248).

\* Estimated from the average number of able-bodied collective farmers per farm given in V. G. Venzher, *Voprosy ispol'zovaniya zikona stoimosti v kolhoznom proizvodstve* (Problems in the Utilization of the Law of Value for Collective Farm Production), Moscow, 1960, p. 79, and the number of agricultural collective farms for these years (1955 and 1956).

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agricultural holdings in private ownership.

<sup>1</sup> Rough, preliminary estimate based on the combined livestock holdings of collective farmer and worker and employee families as reported in *Pravda*, Jan. 30, 1965, p. 1. Man-year inputs in animal husbandry in 1964 was estimated by using the same man-day inputs as used in the calculations for other years. These estimates were then expanded to total inputs by the ratio of animal husbandry inputs to total inputs in 1961 and 1962 (0.63). The 1961-62 ratio was used instead of the 1963 ratio (0.62).

<sup>2</sup> Assumed to be zero based on continued decline since 1950 as well as on the statement that these categories of the population were practically nonexistent as of January 1, 1964. See, *Ta8U pri Sovetskiykh ministroy SSSR. SSSR v (sifrakh) 1963 godu, Kratkiy statisticheskiy sbornik* (The U.S.S.R. in Figures in 1963, A Short Statistical Compilation), Moscow, 1964, p. 65.

*statisticheskiy gnezgodnik* (The National Economy of the U.S.S.R. in 1956, A Statistical Yearbook), Moscow, 1957, pp. 114-115; ———, *Sel'skoye khozyaystvo SSSR statisticheskiy sbornik* (Agriculture of the U.S.S.R., A Statistical Compilation), Moscow, 1960, pp. 128-129, 265-267; ———, *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskiy gnezgodnik* (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook), Moscow, 1961, pp. 389-391; ———, *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskiy gnezgodnik* (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook), Moscow, 1962, pp. 316-317, 382-383; ———, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy gnezgodnik* (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook), Moscow, 1963, pp. 242-253, 300-304; and A. Gol'tsov, "Utilization of Labor Resources in Collective Farms," *Nauchnyye doklady vysshey shkoly, Ekonomicheskiye nauki* (Scientific Reports of Higher Schools, Economic Sciences), No. 1, 1961, pp. 46-47.

S FOR THE U.S.S.R.

Footnotes on following page.

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<sup>1</sup> BLS refers to the U.S. Department of Labor. BLS refers to the U.S. Department of Commerce, Bureau of Economic Analysis.

<sup>2</sup> Beginning in 1960, all data are based on establishment payroll records.

<sup>3</sup> Employment excludes that in agriculture, stock raising, and fishing. Estimates are available for the U.S. in the *Reports on the Labor Force*, issued by the Bureau of Labor Statistics, and now in the *Special Reports* of the Bureau of Labor Statistics. In 1961, employment for private households is 2,662,000 (U.S. Department of Labor, *Special Labor Force Statistics*, 1960). In 1940, employment for private households is 2,662,000 (U.S. Department of Labor, *Special Labor Force Statistics*, 1940). For the United States, a study of Federal and State prisoners in 1940 reported 191,778 prisoners, of whom 68,894 attended school, 11,868 attended college, and 11,868 attended vocational school (U.S. Department of Labor, Bureau of Labor Statistics, *Prisoners in Federal and State Prisons, 1940*, by Richard F. Jones, Jr., U.S. Department of Commerce, Bureau of the Census, 1940, p. 160).

<sup>4</sup> U.S. Department of Labor, Bureau of Labor Statistics, *Annual Supplement Issue*, vol. 11, 1940: Agriculture: Figure is reported.



68,894; attended school, 11,538; s  
(U.S. Department of Labor, Bure  
1940, by Richard F. Jones, Jr., )  
population in Federal and State p  
of Commerce, Bureau of the Cen  
200, p. 160).

\* U.S. Department of Labor, E  
Annual Supplement Issue, vol. 11  
1940: Agriculture: Figure is re

TABLE VI-

Year

1940.....  
1950.....  
1953.....  
1955.....  
1956.....  
1957.....  
1958.....  
1959.....  
1960.....  
1961.....  
1962.....  
1963.....  
1964.....

1 Beginning in 1960, all U.S.  
Bureau of Labor Statistics co  
include Alaska and Hawaii. (

Source: U.S.S.R.: Table V  
shown in table VI-2 was adjuste  
United States comparisons. 1  
as repair of machinery and eq  
transferred to the nonagricultu  
table VI-12. United States: 1  
employment such farm activiti  
operations of farmers. A Sovi  
employment statistics omit wo  
U.S.S.R. employment of cook  
Labor Productivity in the U.  
Economy, No. 2, March 1960.  
interview series: For all years  
households from total employr

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State farms and subsidiary state agricultural establishments	200	200	200	200	200	200	200	400	500	600	600	600
Machine tractor stations (repair-technical stations)	530	678	889	1,147	1,058	989	719	469	248	3		
Forestry	279	444	416	389	390	377	307	352	259	278	289	299
Agricultural branches	43,890	38,493	26,608	89,226	40,384	29,755	20,945	28,219	37,707	27,672	27,223	26,490
Workers and employees	4,006	5,102	5,207	5,895	6,024	7,481	8,230	8,387	10,168	11,659	12,150	NA
State farms and subsidiary state agricultural establishments	1,560	2,225	2,232	2,632	2,728	3,661	4,314	4,537	5,624	6,786	7,120	7,274
Agricultural activities not specifically identified	407	334	356	260	290	278	262	412	451	469	489	465
Private subsidiary economy	2,039	2,543	2,599	3,003	3,009	3,542	3,554	2,418	2,892	4,424	4,531	NA
Collective farms	23,934	22,239	21,264	23,147	24,213	22,162	21,615	29,739	27,431	25,850	25,156	NA
Agricultural	24,700	24,200	23,100	23,900	24,600	23,000	22,400	21,400	20,100	18,700	18,100	17,600
Nonagricultural	100	100	74	104	108	117	65	60	113	75	43	40
Private subsidiary economy	9,134	7,939	8,090	9,143	9,505	9,045	9,050	8,259	7,318	7,075	7,015	NA
Individual peasants	5,930	1,152	179	181	167	132	123	92	75	40	81	0
Correction for rounding	0	0	-42	-2	-20	-20	-25	+1	+33	+23	-15	-2

<sup>1</sup> 80 percent of all employment in nonagricultural collective farms was allocated to the nonagricultural branches and 20 percent to agricultural branches.

Source: Table VI-2.

Notations:  
Private subsidiary co.  
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Correction for rounding  
180 percent of all employees  
nongricultural branches and

women in the labor force have continued to be insistent. Thus, the participation of women has remained high, although normally, as a country industrializes and becomes more urban, participation rates would decline.

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food preparation, and dishwashing exceedingly onerous and time-consuming tasks. Also, shopping under difficult Soviet conditions and in the absence of refrigeration in most households is extremely time consuming. Heavy household burdens, combined with the demands of a career, cause many professional women to have only one or, at most, two children. There seems little doubt that one of the unintended effects of the high proportion of married women working in the Soviet Union is a reduced birth rate.<sup>1</sup> Furthermore, the

<sup>1</sup> Data recently published in *Vestnik statistiki*, No. 1, 1963, p. 96, shows that among the worker and employee socioeconomic group, the birth rate of women working in the 20- to 39-year age group was about a third less than that of women who did not work.

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of semiskilled jobs, since the revolution there has been a substantial improvement in the quality of the female labor force. In the 1920's the educational level of working women of all types lagged substantially behind that of men. By 1959 the census showed that illiteracy had been virtually eliminated in the working ages and that the gap between the educational attainment of men and women had been substantially closed. (See table VII-7.) However, female collective farmers continued to lag far behind the males in educational

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field where women now make up approximately one-third of the enrollment in secondary specialized institutions, and in agricultural sciences where they make up almost two-thirds of the enrollment. In higher educational institutions the rate of increase was rapid in the latter two fields and also in the socioeconomic field. Comprehensive data have not been published on the proportion of women in higher education enrolled in the various science fields, but such information as is available suggests that, among the sciences, women make up substantially more than half of the students enrolled in biology and chemistry, the most popular science fields for women.

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academic fields have increased in number at a slower pace and now  
comprise a fifth of the total (see table VII-15.) Women are well  
represented in higher educational institutions (see table VII-16) and  
in scientific research institutions (see table VII-17.) In the former  
women made up approximately a third of the professional staffs in  
1960 while in the latter almost two-fifths. The proportion of women  
professionals employed in higher educational institutions was nearly  
the same in 1947, the only time that data showing the proportion  
of women in the various academic fields were published. The pattern  
shown by these figures is probably much the same today. In 1947  
women made up two-thirds of the teachers of literature; almost half

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of the younger generation of women has been realized to a remarkable degree in the Soviet Union. In the fields of science and technology in particular, talents which are wasted in the United States and other Western nations, are developed and put to use, contributing not only to women's own development but to the development of the economy as well.

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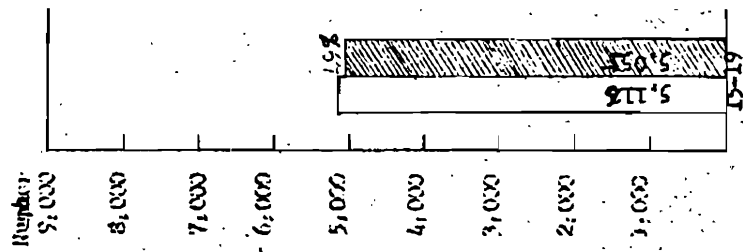
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Male population.....	3,998	4,706	4,010	2,905	2,348	1,751	1,226	707
Male employment.....	3,764	4,342	3,594	2,395	1,845	942	454	209
Participation rate (percent).....	94	92	90	82	79	54	37	26
Female population.....	6,410	7,558	6,437	5,793	4,349	2,289	2,631	1,973
Female employment.....	4,881	5,663	4,445	3,161	2,069	1,172	652	294
Participation rate (percent).....	76	75	69	55	48	35	21	12

Source: Population pyramid: The five-year age groups from 20 to 49 years of age come directly from *Regl. ... 1969 gda: S.S.S.R., op. cit., p. 70*. The division of each of the 0- to 9-, 10- to 19-, and 70- to 79-year age groups into two 5-year age groups was done on the basis of proportions calculated from Brackett, *op. cit.*, pp. 555-556. Employment pyramid: This was estimated from census data, *Regl. ... 1969: S.S.S.R., op. cit.*, pp. 122-145 and 161-170, giving the age distribution by sex of the population employed in the socialized and private independent sector, including those in the military, and pp. 96-99, giving data on employment in the private subsidiary sector by sex and broad age groups. A detailed explanation of how the estimates were made may be found in Norton T. Dodge, *Women in the Soviet Economy: Their Role in Economic, Scientific and Technical Development*, app. III, an unpublished monograph prepared for the National Science Foundation.

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Source: F.

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15-19

Sources: P

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Trade.....		16.0	179	22.0									478	30.8
Public dining.....		40.0	100	55.6									342	64.2
Public Health.....	283	65.0	320	67.1	358	69.0	426	70.2	498	71.0	506	72.2	541	71.2
Education, science, and scientific services.....	449	84.0	482	82.3	514	80.4	692	83.6	866	86.0	859	80.0	941	88.6
Education.....														
Science and scientific services.....														
Government and social institutions; credit and insurance.....	255	19.0	332	22.6	273	24.1	476	25.8	470	29.0	499	26.4	522	31.1
Government and social.....													499	29.9
Credit and insurance.....														
Other branches.....	(284)	(31.0)	(501)	(30.0)	(324)	(31.0)	(679)	(21.0)	(285)	(14.0)	(683)	(27.0)	(967)	(27.0)

	1936 *		1937 *		1940 *		1945 *		1950 *		1952 *		1956 *	
	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
Total national economy.....	8,492	34.0	9,857	35.4	11,978	33.0	18,076	55.0	18,397	47.0	20,200	43.0	21,674	45.0
Industry.....					4,496	41.0	4,840	51.0	6,421	45.0	(7,186)	42.0	(7,815)	45.0
Large-scale industry.....	2,908	33.8	3,298	39.8			489	82.0	845	33.0	(948)	34.0	(989)	31.0
Construction.....	402	19.1	488	20.6	359	23.0	489	61.0	845	49.0	(1,089)	43.0	(1,303)	48.0
State farms and subsidiary agricultural enterprises.....	628	20.4	645	25.7	693	34.0	1,310	61.0	1,193	49.0	(1,089)	43.0	(1,303)	48.0
MTS and RTS.....					157	11.0	144	38.0	108	16.0			(276)	9.0
Transport and communications.....					932	24.0	1,547	(29.0)	1,630	34.0	(1,717)	(33.0)	(1,804)	23.0
Transport.....	446	17.5	477	18.3	702	21.0	1,231	40.0	1,212	30.0	(1,378)	30.0		
Communications.....					230	48.0	296	70.0	318	60.0	(379)	60.0		
Trade, public dining, procurement, material-technical supply.....	781	(37.0)	870	(35.0)	1,463	44.0	1,686	69.0	1,922	53.0	(2,097)	60.0	(2,409)	(64.0)

INDICATORS FOR THE U.S.S.R.

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1. <sup>1</sup> *Zhenskiny i deli v SSSR*, Moscow, 1963, pp. 100, 102-104. Annual average employment estimates.

2. <sup>2</sup> *Zhenskiny i deli v SSSR*, Moscow, 1961, pp. 122-124. Annual average employment estimates.

3. <sup>3</sup> E. Orlikova, "Zhenskii trud v SSSR," in *Planovoe khoz. i statistika*, No. 10, October 1939, p. 113. Data for 1930 are annual averages, for 1934-37, as of Jan. 1. Data are not strictly comparable with those for 1929, 1933, and subsequent years due to branch classification changes. For example, before Jan. 1, 1936, women employed in the Ministry of Railways' repair plants were included in transport, afterward in industry. Slight changes in the construction branch classification also took place.

4. <sup>4</sup> TsUNKhU Gosplana SSSR, *Trud v SSSR, statisticheski spravochnik*, Moscow, 1938, pp. 25 and 380.

5. <sup>5</sup> *Narodnoe khoz. i statistika SSSR v 1968 godu*, Moscow, 1967, pp. 204-206.

6. <sup>6</sup> *Narodnoe khoz. i statistika SSSR v 1968 godu*, Moscow, 1963, pp. 459 and 453-454. Annual average employment estimates. The corrected total is from *Vestnik statistiki*, No. 2, 1964, p. 91.

7. <sup>7</sup> *Narodnoe khoz. i statistika SSSR v 1963 godu*, Moscow, 1965, pp. 475-476 and 1480.

8. <sup>8</sup> *Zhenskina v SSSR*, Moscow, 1960, pp. 33-35.

9. <sup>9</sup> *Vestnik statistiki*, No. 2, 1965, p. 92.

10. <sup>10</sup> *Narodnoe khoz. i statistika SSSR v 1959 godu*, Moscow, 1960, p. 594.

11. <sup>11</sup> Residual (total female employment minus reported or estimated employment in the sub-branches of the national economy in each column.)

Fuel extraction.....				53.1			53.5	53.5	53.5	53.5	53.5								
Iron ore.....	6.3			20.7			23.0	18.5	19.7	21.9	23.6								
Chemical and fuel refining.....							31.7	33.5	34.2	36.5									
Chemical.....		35.5	38.2	36.7	38.9			41.6	36.3	41.3									
Rubber-asbestos.....	57.4			63.7			61.3	62.0	61.6	60.2	62.4								
Rubber.....				63.7		56.9										62.0			
Cement.....				21.9				30.7	27.7		28.6	28.6				37.0	30.1	30.3	
Glass.....				34.0		39.7			46.1		49.8								
China ware.....						82.6													
Woodworking.....		23.4	29.6		82.0			39.0											
Sawn wood.....	18.3			32.5		43.1	30.2	38.7	40.9	44.2	43.9								
Match.....	54.6			58.7			64.4	63.5	63.5	61.6	64.0								
Paper.....	27.5			28.9		40.3	41.1	42.4	44.0	44.6	49.4	40.3				42.7	42.7	43.9	
Textile and clothing.....		64.3	69.1	70.1	69.9			72.2				72.0	76.6			73.8	70.3	72.6	
Textile.....				67.5								69.2				72.4	72.2	72.9	
Cotton textile.....	61.5	63.7	67.3	69.0	68.9	71.2	69.9	70.0	69.8	67.4	69.6								
Wool.....	60.3	62.2	58.1	68.9	69.9	63.2	63.1	63.6	64.9	63.8	65.6								
Flax.....	65.2			69.3		69.5	69.6	71.3	70.1	68.6	69.3								

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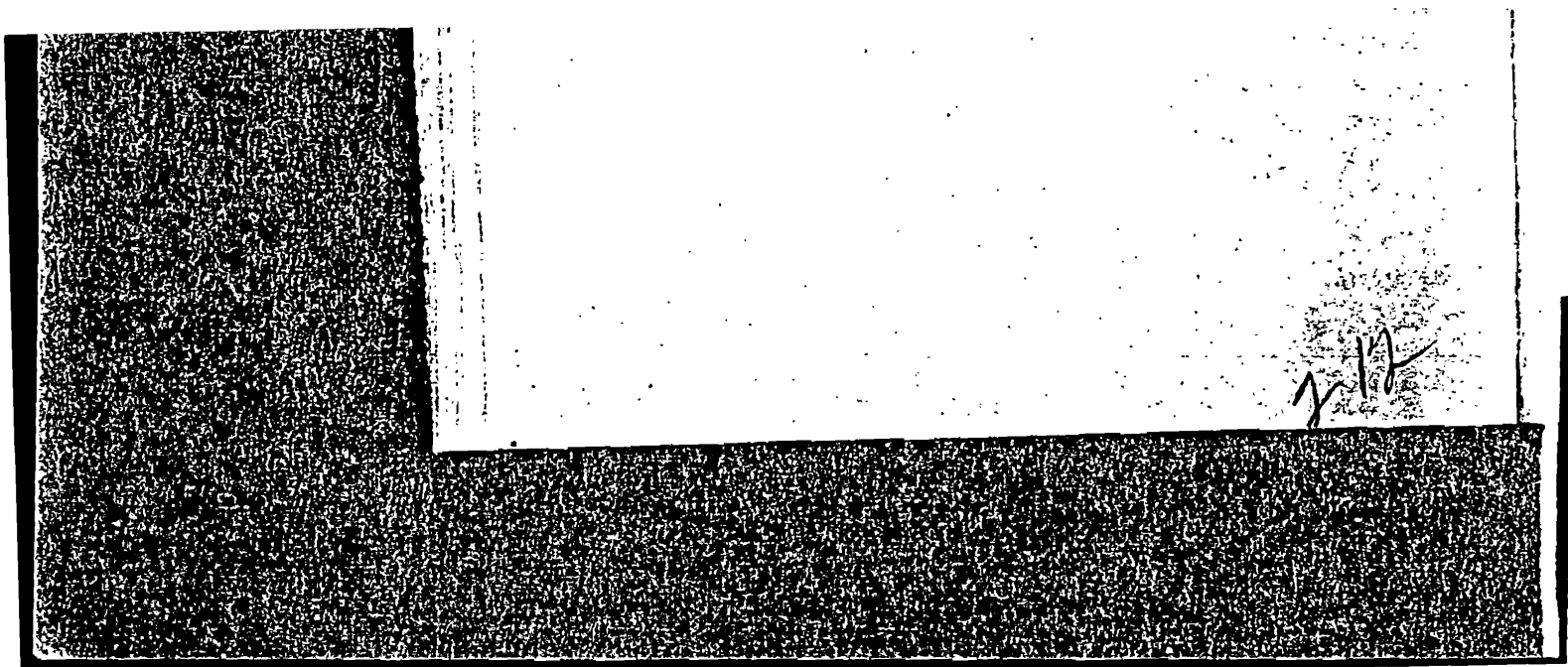
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Sources: Total figures for 1929, 1932, 1934, 1935, 1938, and 1940 are from K. Gaikin, *Vyshee obrazovanie i podgotovka nauchnykh kadrov SSSR*, Moscow, 1958, pp. 110; for 1947, 1950, 1955 and 1956—*Kul'turnoe stroitel'stvo SSSR*, Moscow, 1956, p. 255; and for 1940—*Vyshee obrazovanie i SSSR*, Moscow, 1961, pp. 223-224; 1929, 1932, 1934 and 1935—*Zhenskchina v SSSR*, Moscow, 1937, p. 110. The 1929 figure is for Apr. 1, 1929; the 1931 total percentage (23 percent) is from Gaikin, *The Training of Scientists* \* \* \*, p. 122, which conflicts with the other 1931 percentage figures (10.0 percent and 19.9 percent) from Gaikin, *Vyshee obrazovanie* \* \* \*, p. 115. The 1938 male and female figures are from *Kul'turnoe stroitel'stvo SSSR*, Moscow-Leningrad, 1940, p. 242; 1940 female

percentage—Gaikin, *Vyshee obrazovanie* \* \* \*, p. 115. 1940—Nov. 5, 1947. A. Ia. Sinatskii, *Professorsko-prepodavatel'skie kadry vysshei shkoly SSSR*, Moscow, 1950, p. 183. 1950, 1955, and 1956 female enrollment and percentages—*Narodnoe khoziaistvo SSSR na 1956 godu*, p. 261; 1960 female enrollment and percentages—*Vyshee obrazovanie v SSSR*, Moscow, 1961, pp. 223-24. 1961 female enrollment and percentages are calculated from data in *Izvestia*, Sept. 17, 1963, and *Narodnoe khoziaistvo v 1962 godu*, Moscow, 1963, p. 587. The author is indebted to Mr. Nicholas Rokitskiy for pointing out the *Izvestia* figures on female enrollment which were published in response to a letter he wrote the editor.

Technicians.....	38	39	40	39	38	38	38	38
Agronomists, zoo technicians, veterinary personnel, foresters.....	46	40	40	41	41	43	44	43
Statisticians, planners, commodity specialists.....	77	77	74	74	74	74	74	70
Legal personnel.....	30	30	30	30	30	30	30	30
Medical personnel (including dentists) ..	91	91	91	92	92	91	92	92
Teachers, library, and cultural enlightenment personnel.....	78	79	80	81	81	82	83	82

Sources: See table VII-12a.

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33	38	38
43	44	43
74	74	70
80	80	92
91	92	92
82	83	82

physical culture and sports  
and other unspecified  
specialties

3.4	1.0	2.0	2.7	3.9	5.6	4.1	2.1	2.7
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Source: See sources for table VII-13a. The residual is incorporated as "other unspecified specialties."

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	Number of women	Percentage distrib- ution	Percent women	Number of women	Percentage distrib- ution	Percent women	Number of women	Percentage distrib- ution	Percent women
Academicians, corresponding members, and professors.....	474	2.9	5.4	555	3.0	6.2	725	2.8	7.3
Doklady.....	3,226	19.5	94.8	4,807	25.7	16.8	6,171	22.6	97.1
Senior research workers.....	3,450	20.8	30.4	4,434	23.7	30.4	5,701	21.9	28.4
Junior research workers and assistants.....	9,419	56.8	48.0	8,915	47.6	52.0	12,614	51.8	50.0
Total.....	16,669	100.0	26.9	18,711	100.0	27.0	26,271	100.0	28.2

Source: *Vysshie obrazovaniye v SSSR*, Moscow, 1961, p. 212. The percentage of woman among the totals is derived from the number and percentage of women of each rank.

FOR THE U.S.S.R.

Total.....	28,312	100.0	32.7	39,896	100.0	33.1	49,402	100.0	33.6
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Source: *Vysokoe obratovlenie SSSR*, Moscow, 1961, pp. 206 and 212.

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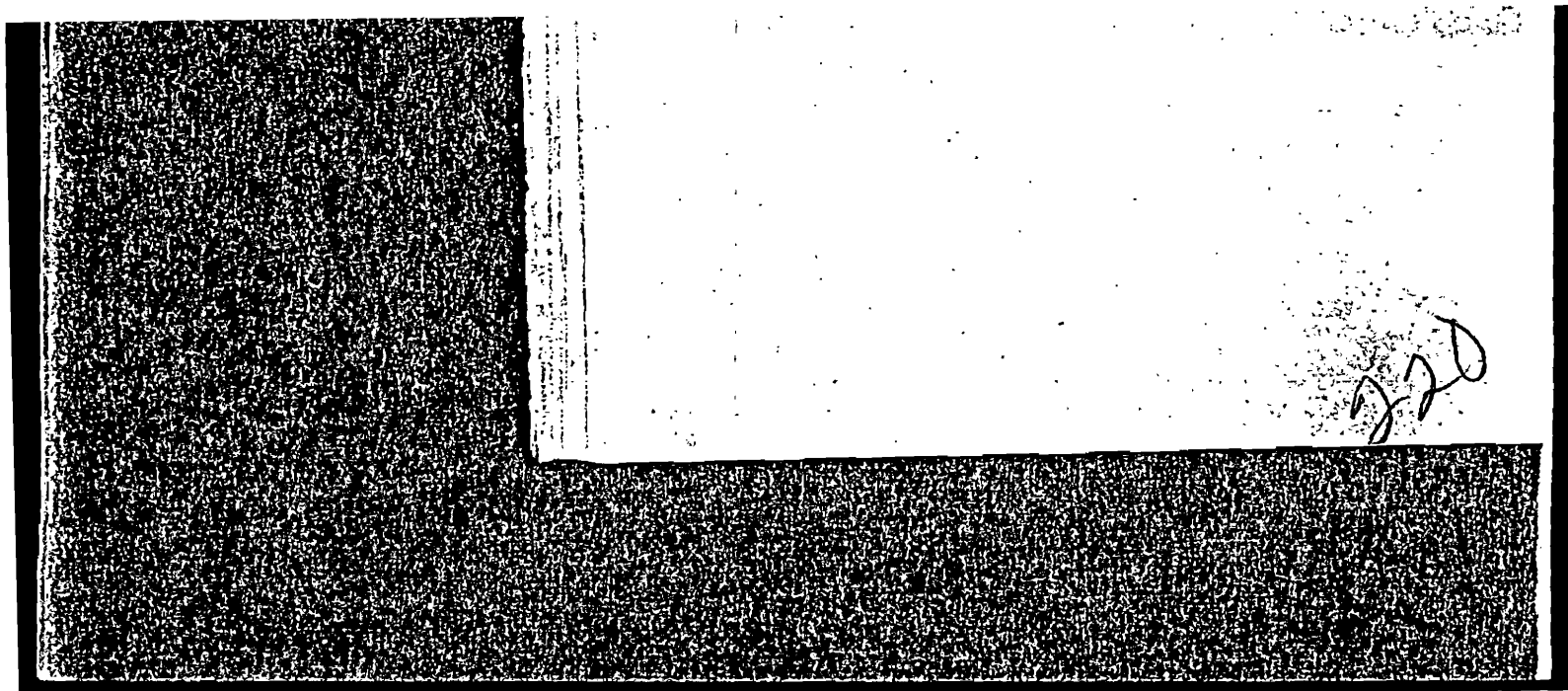
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and 1955, consumption per capita rose only 4.9 percent in 1956 and the rate declined steadily to 2.3 percent in 1961. After recovering somewhat in 1962 the rate of growth plummeted to less than 1 percent in 1963. To some extent the declining rate of growth stemmed from and was compensated for by the declining number of hours worked per year.

5. Differences in the pattern of consumption in the U.S.S.R. compared with the United States result in part from the relative levels of income and in part from imposition of the party's preferences on the



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States <sup>1</sup> .....	11	13	13	14	15	15	16	16	17	17
Health and education services:										
United States (1955=100).....	99	100	103	108	114	119	123	125	129	133
U.S.S.R. (1955=100).....	84	100	101	106	110	115	120	126	131	136
U.S.S.R. as a percent of United States <sup>2</sup> .....	44	52	50	51	50	50	51	52	52	53

<sup>1</sup> Unless otherwise noted indexes for the U.S.S.R. were obtained using the basic procedures presented in *Dimensions of Soviet Economic Power*, p. 360. Indexes for the United States are based on data from the Department of Commerce.

<sup>2</sup> Indexes for consumption of soft and durable goods based on procedures presented in *Dimensions of Soviet Economic Power*, p. 360 were combined with 1955 retail sales as base year weights.

<sup>3</sup> See note <sup>1</sup> in table VIII-1 above.

Personal care and repair services.....	6.7
Miscellaneous services.....	9.9
Health and education services.....	31.9
<b>Total consumption.....</b>	<b>26.2</b>
<b>Total consumption excluding health and education services.....</b>	<b>23.2</b>

<sup>1</sup>CIA, *A Comparison of Consumption in the U.S.S.R. and the United States*, January 1964, pp. 16-18.

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In the U.S.S.R. relative to France, the German Federal Republic, Italy, and the United Kingdom.  
\* "Other" includes expenditures on such items as alcoholic beverages, tobacco, household goods other than durables, household and personal services, public transport, communication, recreation and entertainment, health, and education.

Note.—NA indicates data not available.

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Prices at the end of selected

1963	United States, 1962	U.S.S.R. as a percent of United States levels, 1962	
		1955	1963
21	14	100	150
1.8	8.5	18	21
90	91	62	69

the TsSU U.S.S.R.: *Narodnoye S.S.R. v 1962 godu*, pp. 8 and 615;

*Statistika*, pp. 69 and 75.

in countries: Consumption 1950, 1955, and 1962

Italy		United Kingdom		
1955	1962	1950	1955	1962
90	80	55	61	67
78	78	24	37	44
103	103	31	30	32
220	211	15	26	37
101	98	40	52	62
96	80	42	50	56

1955 U.S. prices are expressed as 1955 U.S. prices. Data for Western Europe: *National Products and Price Statistics* were obtained by making adjustments in the comparison of consumption in the Western European countries for 1950 and 1962. National Accounts, Supplement to Statistics of National Accounts, for product and service category. The discrepancy being the failure to take account of the rates of growth in public consumption as a whole, the data could be obtained if the categories for 1962 were obtained by moving the 1955 comparability with Gilbert's

attempt to take account of differences, however, that their quality adjustments overstate availability of housing comparisons in this table, though overstate the availability of housing and the United Kingdom. However, household goods other than housing, recreation and entertainment,

## CHAPTER IX

### SOVIET BUDGET

1. The state budget of the U.S.S.R. is the chief vehicle for mobilizing the economic surplus of the economy over and above household consumption and for apportioning it among various competing ends (the general activities of investment, national defense, welfare, and government administration). The Soviet budget is far broader than Western national budgets—for example, the Soviet budget includes funds for investment and operational expenditures of productive enterprises that, in capitalist economies, are by and large privately financed.

2. Although the budget is the principal channel for allocating funds to economic enterprises and organizations, these enterprises and organizations also are financed from retained profits and bank loans. In addition, the collective farms, which are not financed from the budget, finance their activities out of retained income and bank loans.

3. The Soviet state budget is a consolidated budget, combining the all-union budget, the budgets of the union republics, and the social security budget. Its announcement in December of the preceding year might be expected to provide an early indication of Soviet policies for the coming year and of fulfillment in the past year. In recent years, however, the possibility of discerning Soviet policy on allocation of resources through an examination of budget material has been impaired by the paucity of detail on planned budgets and the absence of information on actual budget revenues and expenditures in each preceding year. Furthermore, unannounced accounting changes and substantial divergence of actual from planned budgets limit the value of announced budget plans and make analyses of trends in financial categories a risky business.

TABLE IX-1.—U.S.S.R.: Revenues of the state budget, by budget category, 1955 and 1959-63,<sup>1</sup> actual receipts

[In billions of current rubles]

	1955	1959	1960	1961	1962	1963
Social sector.....	47.02	64.61	70.14	71.0	74.7	61.4
Turnover tax.....	24.24	31.07	31.34	30.9	32.9	34.5
Deductions from profits.....	10.28	15.96	15.63	20.7	23.0	23.7
Revenue from MTS-RTS's.....	.62	.16	2 (0)	(0)	(0)	(0)
Other taxes on organizations.....	1.24	1.97	1.84	1.2	1.3	1.4
Social insurance receipts.....	2.61	3.58	3.74	4.2	4.5	4.7
Revenue residual.....	5.63	12.91	14.56	14.0	14.1	14.1
Private sector.....	8.82	7.41	6.94	7.0	7.6	8.1
State taxes on the population.....	4.63	5.52	5.60	5.8	6.0	6.3
State loans from savings deposits.....	.43	1.33	.85	.76	1.1	1.2
Other state loans.....	3.15	.16	.00	.03	.1	.1
Local taxes on state lottery revenue.....	.31	.40	.43	.4	.4	.5
Total revenues.....	55.83	74.01	77.08	78.03	84.3	69.5

<sup>1</sup> Due to rounding, components may not add to the totals shown. Rubles are expressed in terms of new rubles.<sup>2</sup> Figures in parentheses are estimates.

NOTE.—NA indicates data not available.

Sources: Dundukov, G. F. (ed.), *Gosudarstvennyy byudzhel SSSR i byudzhety soyuznykh respublik: statisticheskiy sbornik*, Moscow, 1962, pp. 7-9. U.S.S.R., TsSU. *Narodnoye khozyaystvo SSSR v 1962*, Moscow, 1963, p. 636. U.S.S.R., TsSU. *Narodnoye khozyaystvo SSSR v 1963*, Moscow, 1965, p. 634.TABLE IX-2.—U.S.S.R.: Expenditures of the state budget, by budget category, 1955 and 1959-63,<sup>1</sup> actual outlays

[In billions of current rubles]

	1955	1959	1960	1961	1962	1963
Financing the national economy.....	23.31	32.37	34.12	32.6	36.2	35.5
Industry and construction.....	10.95	14.88	15.50	NA	NA	NA
State agriculture.....	6.09	3.52	4.42	NA	NA	NA
Agricultural procurement.....	.76	2 (5)	(5)	NA	NA	NA
Trade (domestic and foreign).....	1.07	3.21	3.50	NA	NA	NA
Transportation and communications.....	1.95	2.69	2.81	NA	NA	NA
Municipal economy and housing.....	.90	2.75	3.21	NA	NA	NA
Residual.....	2.60	(4.83)	(4.00)	NA	NA	NA
Social-cultural measures.....	14.72	23.12	24.94	27.2	28.9	31.0
Education and science.....	6.89	9.41	10.32	11.3	12.4	13.7
Health and physical culture.....	3.11	4.46	4.82	5.0	4.9	5.3
Social welfare.....	4.71	9.24	9.79	10.9	11.6	12.0
Defense.....	10.74	9.37	9.30	11.6	12.6	13.9
Administration.....	1.25	1.12	1.00	1.1	1.1	1.1
Loan service.....	1.43	.09	.7	.5	.8	.1
Budgetary expenditure residual.....	2.51	3.78	2.97	3.0	2.6	2.1
Total expenditures.....	53.95	70.40	73.13	76.3	82.2	87.0

<sup>1</sup> Due to rounding, components may not add to the totals shown. Rubles are expressed in terms of new rubles.<sup>2</sup> Figures in parentheses are estimates.

NOTE.—NA indicates data not available.

Sources: Dundukov, G. F. (ed.), *Gosudarstvennyy byudzhel SSSR i byudzhety soyuznykh respublik: statisticheskiy sbornik*, Moscow, 1962, pp. 18-19. U.S.S.R., TsSU. *Narodnoye khozyaystvo SSSR v 1959*, Moscow, 1959, p. 900. U.S.S.R., TsSU. *Narodnoye khozyaystvo SSSR v 1959*, Moscow, 1960, p. 801. U.S.S.R., TsSU. *Narodnoye khozyaystvo SSSR v 1962*, Moscow, 1963, p. 635. U.S.S.R., TsSU. *Narodnoye khozyaystvo SSSR v 1963*, Moscow, 1965, p. 634.



net category, 1965

	1962	1963
	76.7	89.4
	32.9	32.5
	23.9	28.7
	(0)	(0)
	1.3	1.4
	4.5	4.7
	14.1	15.1
	7.6	8.1
	6.0	6.3
	1.1	1.2
	.1	.1
	.4	.5
	84.8	89.5

pressed in terms of new

у союзных республик:  
издано СССР в 1968,  
м. М., 1968, с. 654.

budget category,

	1962	1963
	36.2	38.8
	NA	NA
	NA	NA
	NA	NA
	NA	NA
	NA	NA
	NA	NA
	28.9	31.0
	12.4	13.7
	4.9	5.3
	11.6	12.0
	12.6	13.9
	1.1	1.1
	0.8	.1
	2.6	2.1
	82.2	87.0

pressed in terms of new

у союзных республик:  
издано СССР в 1968,  
Москва, 1968, с. 801.  
U.S.S.R., TsSU. Narod-

## CHAPTER X

### EDUCATION<sup>1</sup>

Total Soviet education enrollments (excluding factory training programs) increased from 49.5 million in the 1962-63 school year to 52.4 million in 1963-64. With a larger school age population in the U.S.S.R. than in the United States, the total numbers in school were roughly comparable in the two countries. In the fall of 1962, total elementary, secondary, and higher education enrollments in the United States were 49.8 million and, in the fall of 1963, 51.7 million. (The U.S. figures include kindergarten enrollments, the Soviet figures do not.)

Enrollments in upper secondary general education, grades 9 to 11, in the U.S.S.R. increased from 4.6 million in 1962-63 to 5.7 million in 1963-64. During the same period, U.S. school enrollments in grades 9 to 12 increased from 11.5 to 12.3 million. Despite the increase, the Soviet Government decided to return to a 10-year school system, upper secondary education to consist of grades 9 and 10, in 1964.

Soviet higher education enrollments increased from 2.9 million in 1962-63 to 3.3 million in 1963-64. U.S. higher education enrollments were 4.2 million in the fall of 1962 and 4.5 million in the fall of 1963. Enrollments in regular day programs of higher education have increased very slightly in the past decade in the U.S.S.R. from 1.1 million in 1954-55 to 1.4 million in 1963-64. The bulk of the increase has been in higher education by correspondence-extension courses, enrollments in such courses increasing about 2½ times in the same decade to the 1963-64 total of about 1 million.

Soviet total education expenditures (in all categories listed in Soviet tables except press, art, and radiobroadcasting) increased from 15.5 billion rubles in 1962 to 16.9 billion rubles in 1963. At the official rate of exchange of 1.10 dollars to 1 ruble, the amounts were about 17.1 billion dollars in 1962 and 18.6 billion dollars in 1963. U.S. education expenditures, not directly comparable to Soviet expenditures, were approximately 32 billion dollars during the 1962-63 school year.

<sup>1</sup> U.S. statistics cited here are from *Progress of Public Education in the United States of America 1963-64*. U.S. Department of Health, Education, and Welfare, Office of Education Report OE-10005-64-A. Washington: U.S. Government Printing Office, 1964. 73 pages.

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SOURCE: Data in the tables on education are primarily from the following source: *Narodnoe khoziaistvo SSSR v. 1965 g., statisticheskiy ezhegodnik (National Economy of the U.S.S.R. in 1965, statistical yearbook)*, published by the Central Statistical Administration attached to the U.S.S.R. Council of Ministers, Moscow, 1965. Data from other official Soviet statistical handbooks have also been included.

TABLE X-1.—Enrollment in schools and training programs of various types at all levels, U.S.S.R., selected years, 1914-15 to 1963-64

(Thousands of students at beginning of school year)

Schools and training programs	1914-15	1940-41	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64
Total enrollment.....	10,568	47,347	47,717	46,057	48,741	52,600	56,310	61,265	65,100
General education schools of all types.....	9,056	35,552	37,643	31,483	33,364	38,187	39,087	42,445	44,682
Primary, 7-year, 8-year, and complete secondary schools.....	9,656	34,784	30,953	29,567	31,048	33,417	35,813	38,482	40,476
Schools for workers and rural youth and schools for adults (including correspondence study).....		768	1,690	1,916	2,318	2,770	3,274	3,960	4,204
Trade-technical and factory schools.....	106	717	774	904	996	1,113	1,266	1,397	1,491
Secondary specialized educational institutions <sup>1</sup> .....	54	975	1,477	1,876	1,908	2,060	2,370	2,668	2,983
Higher educational institutions.....	127	812	1,441	2,179	2,267	2,396	2,640	2,944	3,261
Training programs for new trades and raising qualifications in factory and other courses (excluding political education).....	645	9,491	11,382	9,615	10,206	10,844	10,977	11,814	12,683

<sup>1</sup> These are industrial technicians and other secondary specialized schools, providing vocational-technical training.

TABLE X-2.—Schools of general education of all types, number of schools, enrollment, and number of teachers, U.S.S.R., 1950-51 and 1958-64

(At beginning of school year)

	1950-51	1958-59	1960-61	1962-63	1963-64
Schools of general education of all types.....	222	215	224	227	227
Total enrollment (thousands).....	34,752	31,483	36,187	42,442	44,682
Of which:					
Grades 1 to 4.....	20,023	17,779	18,659	19,426	19,708
Grades 5 to 8 <sup>1</sup> .....	13,706	10,571	14,796	18,233	19,105
8th grade students.....	929	1,638	2,827	3,947	4,502
Grades 9 to 11.....	907	8,022	2,694	4,596	5,654
9th grade students.....	495	1,397	1,383	2,438	2,620
10th grade students.....	382	1,589	1,152	1,681	2,068
11th grade students.....	30	36	57	47	94
Students in schools for mentally and physically handicapped children.....	117	111	136	187	217
Total number of teachers (thousands).....	1,475	1,900	2,043	2,235	2,339

<sup>1</sup> The significant increase in the number of students in grades 5 to 8 for recent years is attributable to the transition from the compulsory 7-year general school to the compulsory 8-year general school.

NOTE.—Boarding schools, and schools and groups with a prolonged day underwent expansion. At the beginning of the 1963-64 school year the enrollment in boarding schools and in schools and groups with a prolonged day was 2,400,000.

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TABLE X-3.—Primary, 7-year, 8-year, and complete secondary schools, number of schools, enrollment, and number of teachers, U.S.S.R., 1952-53 and 1958-59 to 1963-64

[At beginning of school year]

	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64
Total number of schools (thousands) <sup>1</sup> .....	196.3	199.7	199.8	199.2	198.5	197.6	193.5
Primary.....	115.8	112.4	111.6	110.1	108.0	105.4	101.8
7-year.....	62.0	55.7	54.4	50.4	48.1	45.8	43.7
8-year.....	19.7	20.7	21.1	22.5	23.5	24.1	24.8
Complete secondary.....	1.8	1.9	1.0	1.0	1.2	1.3	1.5
Special schools for mentally and physically handicapped children.....	0.8	0.9	1.0	1.0	1.2	1.3	1.5
Total enrollment (millions).....	30.9	29.6	31.0	33.4	35.5	38.5	40.5
Primary.....	4.5	4.3	4.3	4.4	4.4	4.3	4.2
7-year.....	13.6	8.9	9.2	6.1	3.1	1.0	0.7
8-year.....	12.7	16.1	16.3	16.9	17.0	18.0	19.0
Complete secondary.....	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Special schools.....	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Total number of teachers (thousands).....	1,631.0	1,813.0	1,855.0	1,933.0	2,024.0	2,120.0	2,218.0

<sup>1</sup> Excluding schools for working and rural youth and schools for adults.

TABLE X-4.—Higher and secondary specialized educational institutions, number of schools, and enrollment by type of instruction, U.S.S.R., 1952-53, 1958-59 to 1963-64

	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64
Higher schools:							
Total number.....	827	766	753	739	731	735	742
Total enrollments (thousands).....	1,441	2,179	2,267	2,396	2,640	2,944	3,251
Day division.....	833	1,180	1,146	1,156	1,204	1,257	1,383
Evening division.....	38	153	166	245	307	374	439
Correspondence instruction.....	470	846	925	995	1,129	1,283	1,429
Secondary specialized schools:							
Total number.....	3,604	3,846	3,330	3,328	3,416	3,521	3,626
Total enrollments (thousands).....	1,477	1,876	1,906	2,060	2,370	2,668	2,983
Day division.....	1,219	1,125	1,067	1,091	1,203	1,310	1,474
Evening division.....	62	303	318	370	431	489	536
Correspondence instruction.....	176	448	523	599	736	809	973

TABLE X-5.—Enrollment in secondary specialized educational institutions, by groups of specialties, U.S.S.R., 1952-53, 1958-59 to 1963-64

[Thousands of students]

Groups of specialties	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64
All specialties, total.....	1,477.4	1,875.9	1,907.8	2,059.5	2,369.7	2,667.7	2,982.8
Geology and prospecting for mineral resources.....	19.9	11.1	10.6	11.8	12.5	13.8	16.0
Mining of mineral resources.....	49.0	54.3	47.6	42.0	38.5	35.1	35.5
Power engineering.....	57.6	77.5	84.2	98.4	115.1	130.7	147.4
Metallurgy.....	19.9	24.0	24.3	27.3	30.2	33.1	36.0
Machine building and instrument making.....	155.3	359.7	330.2	348.2	367.8	428.1	473.3
Electromachine building and electro-instrument making.....	20.5	27.7	33.2	45.5	60.4	78.8	101.5
Radiotechnics and communication.....	40.4	59.3	61.4	71.1	79.3	83.6	104.4
Chemical technology.....	27.2	31.6	34.6	43.5	61.9	58.8	64.9
Timber engineering and technology of wood, cellulose, and paper.....	17.8	29.7	27.3	28.7	30.7	32.8	35.4
Technology of food products.....	23.7	51.6	59.3	66.6	75.6	86.1	98.4
Technology of consumer goods.....	27.7	42.1	61.8	59.7	63.9	71.7	84.0
Construction.....	108.6	161.4	145.6	162.0	165.9	163.8	204.8
Geodesy and cartography.....	5.4	7.3	6.3	6.4	6.2	6.3	6.6
Hydrology and meteorology.....	4.1	6.2	5.9	6.3	6.6	6.9	7.0
Agriculture.....	219.7	293.5	301.3	292.4	314.8	340.9	380.1
Transport.....	52.8	98.6	101.0	112.3	126.8	147.1	160.9
Economics.....	130.8	220.2	236.2	261.5	317.4	371.2	401.8
Health and physical culture.....	153.2	164.6	159.5	176.3	232.9	257.6	279.5
Education.....	303.2	330.5	342.2	354.3	383.6	412.6	437.4
Art.....	25.2	37.3	44.8	54.6	69.4	78.5	85.8

ious types at all

	1952-53	1958-59	1963-64
1952-53	61,265	65,100	
1958-59	42,445	44,682	

	1952-53	1958-59	1963-64
1952-53	38,482	40,478	

	1952-53	1958-59	1963-64
1952-53	3,960	4,204	

	1952-53	1958-59	1963-64
1952-53	1,397	1,401	

	1952-53	1958-59	1963-64
1952-53	2,668	2,983	

	1952-53	1958-59	1963-64
1952-53	2,944	3,261	

	1952-53	1958-59	1963-64
1952-53	11,814	12,683	

ling vocational-technical

schools, enrollment,  
58-64

	1952-53	1958-59	1963-64
1952-53	227	221	

	1952-53	1958-59	1963-64
1952-53	42,442	44,682	

	1952-53	1958-59	1963-64
1952-53	19,426	19,796	

	1952-53	1958-59	1963-64
1952-53	18,233	19,105	

	1952-53	1958-59	1963-64
1952-53	3,947	4,502	

	1952-53	1958-59	1963-64
1952-53	4,596	5,654	

	1952-53	1958-59	1963-64
1952-53	2,488	2,620	

	1952-53	1958-59	1963-64
1952-53	1,681	2,059	

	1952-53	1958-59	1963-64
1952-53	427	945	

	1952-53	1958-59	1963-64
1952-53	136	217	

	1952-53	1958-59	1963-64
1952-53	2,225	2,339	

	1952-53	1958-59	1963-64
1952-53	19,426	19,796	

	1952-53	1958-59	1963-64
1952-53	18,233	19,105	

	1952-53	1958-59	1963-64
1952-53	3,947	4,502	

	1952-53	1958-59	1963-64
1952-53	4,596	5,654	

	1952-53	1958-59	1963-64
1952-53	2,488	2,620	

	1952-53	1958-59	1963-64
1952-53	1,681	2,059	

	1952-53	1958-59	1963-64
1952-53	427	945	

	1952-53	1958-59	1963-64
1952-53	136	217	

	1952-53	1958-59	1963-64
1952-53	2,225	2,339	

TABLE X-6.—Enrollment of primary, 7-year, 8-year, and complete secondary schools, by class grouping, U.S.S.R., 1950-51 and 1958-64

[At beginning of school year; in millions]

	1950-51	1958-59	1960-61	1962-63	1963-64
Total enrollment <sup>1</sup> .....	33.3	29.6	33.4	33.5	31.5
In cities and urban areas.....	11.8	13.7	16.1	18.9	20.1
In rural areas.....	21.5	15.9	17.3	19.6	20.4
Classes 1 to 4, total.....	19.7	17.7	18.6	19.4	19.6
In cities and urban areas.....	6.2	7.6	8.4	9.0	9.2
In rural areas.....	13.5	10.1	10.2	10.4	10.4
Classes 5 to 8, total.....	12.8	9.6	13.2	16.2	17.3
In cities and urban areas.....	5.1	4.8	6.7	8.0	8.6
In rural areas.....	7.7	4.8	6.5	8.2	8.7
Classes 9 to 11, total.....	.7	2.2	1.5	2.7	3.4
In cities and urban areas.....	.4	1.2	.9	1.7	2.2
In rural areas.....	.3	1.0	.6	1.0	1.2

<sup>1</sup> Excluding enrollment figures for the mentally defective and physically handicapped.

TABLE X-7.—Schools for workers, peasant youth, and adults, U.S.S.R., 1950-51 and 1958-64

[At the beginning of the school year]

	1950-51	1958-59	1960-61	1962-63	1963-64
Total number of schools <sup>1</sup> .....	20,465	15,403	25,229	29,096	25,647
Independent institutions.....	12,204	9,647	12,331	12,778	13,064
Total enrollment (including correspondence course students (in thousands)).....	1,437.8	1,916.3	2,769.9	3,960.3	4,203.5
Classes 1 to 4.....	352.2	50.9	54.2	81.9	84.7
Classes 5 to 8.....	804.1	1,048.5	1,454.6	2,002.2	1,852.8
Classes 9 to 11.....	191.5	816.9	1,061.1	1,876.2	2,236.0

<sup>1</sup> Including elementary, 7-year, 8-year, and complete secondary schools which offer organized classes for the instruction of working and peasant youth, as well as independent correspondence schools.

TABLE X-8.—Nursery schools—Number of schools, enrollment, and number of teachers and principals, U.S.S.R., 1927-63

[At the end of the year]

Year	Total (thousands)		
	The number of nursery schools	The number of children	Principals and teachers
	Thousands	Thousands	Thousands
1927.....	2.1	107.5	6.1
1932.....	19.6	1,061.7	82.0
1937.....	24.5	1,045.3	71.5
1940.....	24.0	1,171.5	75.2
1950.....	25.6	1,168.8	92.6
1958.....	36.8	2,354.1	191.9
1960.....	43.6	3,115.1	243.4
1962.....	52.7	4,171.7	311.9
1963.....	57.6	4,813.0	350.4

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	1952-53	1953-54
1	28.8	28.8
2	18.9	18.9
3	10.6	10.6
4	10.4	10.4
5	10.4	10.4
6	10.2	10.2
7	8.0	8.0
8	8.2	8.2
9	2.7	2.7
10	1.7	1.7
11	1.0	1.0

U.S.S.R., 1950-51

	1952-53	1953-54
1	20,096	25,617
2	12,778	12,061
3	2,980.3	4,203.5
4	81.9	84.7
5	2,002.2	1,882.8
6	1,870.2	2,236.0

The organized classes for  
for schools.

and number of

(thousands)	number of children	Principals and teachers
1952-53	1,087.5	7,000.0
1953-54	1,048.3	62.0
	1,171.8	71.6
	1,169.8	76.2
	1,154.1	82.6
	1,115.1	191.9
	1,171.7	243.4
	1,171.7	311.9
	1,171.7	350.4

TABLE X-9.—Distribution of elementary 7-year, 8-year, and secondary school teachers according to educational rank and length of service in pedagogical work, U.S.S.R., selected years 1950-51 and 1963-64 (for schools of the Ministries of Education and the Ministry of Transportation)

	Total number of teachers (without other positions)	Of those (in percentages of the total)					
		Those with education				Those with service in pedagogical work	
		Higher	In teachers' institutes and comparable educational institutions	Secondary	Of that number pedagogical	Without complete Secondary education	Up to 5 years 25 years and more
All teachers (including school directors): <sup>1</sup>	Thousands						
1950-51	1,425	14.2	20.4	58.9	46.9	6.5	34.3
1963-64	2,119	33.3	14.9	44.7	35.6	2.1	23.8
Principals of elementary schools	101	2.2	5.3	91.8	63.0	7.7	12.2
Directors of 8-year schools	64	71.5	24.2	4.3	3.3	0.04	7.6
Directors of secondary schools	28	90.1	3.6	3.3	2.2	0.04	4.4
Directors of studies of 8-year schools	48	68.1	24.6	7.3	5.9	0.04	13.0
Directors of studies of secondary schools	53	51.4	8.9	7.5	3.9	2.2	14.8
Teachers (except for teachers-directors of the schools):							
Classes 1 to 4	647	4.9	6.1	89.4	79.9	6.6	10.9
Classes 5 to 8	728	84.4	27.7	15.7	9.9	2.2	25.3
Classes 9 to 11	206	87.1	9.2	3.6	2.0	1.1	22.5
Teachers of music, singing, drawing (art), drafting, physical education, and mechanical drawing	242	15.2	7.2	61.8	29.2	15.8	46.5

<sup>1</sup> Directors of schools generally perform teaching duties.



TABLE X-10.—*Distribution of teachers in classes 5 to 8 and 9 to 11, including directors, directors of studies, and persons in charge of instruction according to specialties and level of education at the beginning of the 1963-64 school year, U.S.S.R.*

[According to schools of the Ministries of Education and the Ministry of Transportation]

	Teachers, classes 5 to 8				Teachers, classes 9 to 11			
	Total of teachers (without other positions—in thousands)	Of those with education (in percentages)			Total number of teachers (without other professions—in thousands)	Of those with education (in percentages)		
		Higher	In teachers' institutes and comparable educational institutions	Secondary and incomplete secondary		Higher	In teachers' institutes and comparable educational institutions	Secondary and incomplete secondary
Russian language and literature:								
In schools with instruction in the Russian language.....	139	60.8	28.4	10.8	30	90.7	7.2	2.1
In schools with instruction in non-Russian languages.....	55	52.4	28.0	19.0	15	83.7	12.3	4.0
Maternal language (except for Russian) and literature.....	72	60.7	29.1	10.2	19	88.4	9.6	2.0
History.....	93	66.1	25.2	8.7	37	92.1	6.5	1.4
Physics.....	34	63.7	23.1	13.2	26	90.8	7.3	1.9
Mathematics.....	131	52.7	31.2	16.1	41	89.8	8.5	1.7
Physics and mathematics.....	58	44.0	38.8	16.6	13	82.7	13.4	2.9
Chemistry.....	28	70.1	19.8	10.1	23	93.7	5.0	1.3
Geography.....	66	68.7	20.3	11.0	14	89.4	7.9	2.7
Natural science.....	68	56.2	27.7	16.1	15	85.4	10.1	4.5
Geography and natural science.....	26	41.3	40.5	18.2	4	78.5	17.3	4.2
Foreign languages.....	88	64.8	15.4	19.8	23	86.4	8.4	8.2

1963

TABLE X-11.—The number of women teachers in elementary, 7-year, 8-year, and secondary schools, U.S.S.R., selected years, 1950-51 and 1963-64 (of the Ministries of Education and the Ministry of Transportation)

[At the beginning of the school year]

	The number of teachers without other positions (in thousands)	The number that are women	Percentage of women of the total number of teachers and directors of schools
All teachers (including directors of schools):			
1950-51.....	1,425	990	70
1963-64.....	2,119	1,459	69
Of which:			
Directors of elementary schools.....	101	73	72
Directors of 8-year schools.....	64	15	24
Directors of secondary schools.....	28	6	20
Directors of studies of 8-year schools.....	48	27	56
Directors of studies of secondary schools.....	55	24	44
Teachers (except for teachers-directors of schools):			
Classes 1 to 4.....	647	561	87
Classes 5 to 8.....	728	546	75
Classes 9 to 11.....	208	128	61
Teachers of music, singing, drawing (art), drafting, physical education and manual training.....	242	60	25

TABLE X-12.—Admissions to secondary specialized educational institutions by type of instruction, and admissions and graduations by branch group of educational institution, U.S.S.R., 1962 and 1958-63

[Thousands of students]

	1952	1958	1959	1960	1961	1962	1963
Admissions:							
Type of instruction:							
Day division.....	412.0	363.7	378.4	415.0	451.3	466.3	500.8
Evening division.....	28.1	75.2	95.7	130.0	139.1	141.4	146.1
Correspondence instruction.....	69.9	145.2	179.1	224.3	230.7	297.9	308.1
Branch groups of educational institutions, total.....	500.0	584.1	653.2	769.3	821.1	905.6	955.0
Industry and construction.....	193.8	221.5	271.2	322.2	347.6	360.0	385.1
Transport and communications.....	35.5	48.6	51.6	60.8	68.4	73.0	77.6
Agriculture.....	85.0	108.4	111.3	120.3	134.7	146.3	151.0
Economics and law.....	25.7	70.3	77.0	92.7	117.2	122.0	124.3
Health, physical culture, and sports.....	58.0	67.5	70.6	85.5	92.3	91.3	102.1
Education.....	84.2	58.6	61.9	72.1	91.4	92.9	94.4
Art and cinematography.....	7.8	11.3	12.7	15.7	19.5	20.1	20.5
Graduations:							
Branch groups of educational institutions, total.....	280.6	551.2	527.9	483.5	429.5	452.2	510.7
Industry and construction.....	79.3	219.7	224.3	189.9	170.9	163.6	202.9
Transport and communications.....	14.7	42.2	40.5	38.6	37.1	34.6	35.3
Agriculture.....	47.0	96.3	89.5	80.2	77.7	74.8	64.6
Economics and law.....	23.7	45.2	50.3	58.5	56.2	59.8	67.9
Health, physical culture, and sports.....	41.0	77.2	71.0	64.2	31.3	58.6	71.8
Education.....	70.2	63.4	46.1	48.9	48.6	51.9	58.0
Art and cinematography.....	4.7	7.2	7.2	7.2	7.7	8.9	10.2



TABLE X-13.—*Graduations of specialists from higher and secondary specialized institutions, according to type of instruction, U.S.S.R., selected years, 1940, 1950, 1958, and 1960-63*

(In thousands)

	1940	1950	1958	1960	1962	1963
Graduations from higher educational institutions.....	126.1	176.9	290.8	343.2	316.6	321.7
Type of instruction:						
Daytime divisions.....	97.8	145.0	205.4	238.7	193.1	200.7
Evening divisions.....	4.4	2.0	8.7	15.4	22.8	23.9
Correspondence instruction.....	23.9	29.0	76.7	99.2	99.0	105.1
Graduations from middle specialized educational institutions.....	236.8	313.7	551.2	483.5	452.2	510.7
Type of instruction:						
Daytime divisions.....	205.3	279.0	483.2	346.1	290.3	288.8
Evening divisions.....	2.5	4.7	27.5	57.9	36.5	91.0
Correspondence instruction.....	29.0	30.0	60.5	77.5	105.1	130.9

TABLE X-14.—*The number of graduations of specialists from higher and secondary specialized educational institutions, U.S.S.R., 1918-63*

(In thousands)

	Graduations of specialists from higher educational institutions		Graduations of specialists from secondary specialized educational institutions	
	Total	Average annual number	Total	Average annual number
1918-28.....	340	30.9	194	18.0
1929-32.....	170	42.5	291	72.8
1933-37.....	370	74.0	623	124.6
1938-40.....	328	109.3	674	226.0
1941-45.....	302	60.4	540	108.0
1946-50.....	632	126.4	1,278	255.7
1951-55.....	1,121	224.3	1,560	311.9
1956-58.....	817	272.4	1,565	521.8
1959-63.....	1,655	331.0	2,404	480.8
Total.....	5,755		9,137	

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secondary specialized  
years, 1940, 1950,

1940	1950	1963
348.3	316.6	83
228.7	195.1	200.7
18.4	22.5	23.9
99.2	99.0	105.1
483.5	432.2	510.7
348.1	290.3	298.8
57.9	56.8	91.0
77.5	105.1	130.9

higher and secondary  
18-63

graduations of specialists  
from secondary special-  
ized educational insti-  
tutions

Total	Average annual number
198	18.0
291	72.8
623	124.6
678	226.0
540	106.0
1,278	255.7
1,560	311.9
1,565	521.8
2,404	480.8
9,137	

TABLE X-15.—Graduations of specialists from secondary specialized educational institutions, by groups of specialties, U.S.S.R., selected years, 1950, 1958, and 1960-63

(In thousands)

	1950	1958	1960	1962	1963
Total.....	312.7	551.0	493.5	422.2	510.7
GROUPS OF SPECIALTIES					
Geology and prospecting for mineral resources.....	1.8	5.2	2.5	2.2	2.1
Mining of mineral resources.....	6.0	15.8	14.1	8.3	7.0
Power engineering.....	7.7	21.0	18.4	16.0	21.7
Metallurgy.....	4.9	6.8	5.6	4.1	3.9
Machine building and instrument making.....	26.6	70.8	74.9	59.9	70.8
Electro-machine building and electro-instrument making.....	2.4	7.8	6.8	7.2	12.2
Radiotechnics and communication.....	5.2	13.9	12.3	13.0	16.6
Chemical technology.....	4.4	10.6	7.0	7.6	11.6
Timber engineering, and technology of wood, cellulose and paper.....	2.4	8.7	6.7	4.9	5.5
Technology of food products.....	4.9	10.2	12.0	12.9	13.9
Technology of consumer goods.....	5.0	8.9	9.0	9.1	15.8
Construction.....	14.6	52.3	34.2	27.0	26.6
Geodesy and cartography.....	.8	2.5	1.3	1.2	.9
Hydrology and meteorology.....	.6	1.4	1.4	1.4	1.4
Agriculture.....	40.6	79.8	67.2	61.6	48.0
Transportation.....	11.1	23.7	21.3	20.0	20.3
Economics.....	26.3	64.0	71.6	70.0	67.2
Health and physical culture.....	54.2	80.6	64.4	58.9	72.1
Education.....	76.7	58.9	47.9	50.3	56.8
Art.....	5.0	6.3	7.5	10.6	12.3

TABLE X-16.—Total state budget expenditures and expenditures budgeted for enlightenment, U.S.S.R., 1955 and 1958-63

[Data for 1955-60 are from *Narodnoe khoziaistvo v 1960 godu* (National Economy in 1960), statistical yearbook published by the Central Statistical Administration attached to the U.S.S.R. Council of Ministers, Moscow, 1961. 1 p. 840-847. The 1961-62 data, from the yearbooks published in 1962 and 1963 and data for 1963 are from the yearbook published in 1965, pp. 654-657]

Budget category	Billions of rubles						
	1955	1958	1959	1960	1961	1962	1963
Total State budget expenditures.....	54,000	64,300	70,400	73,100	76,300	82,200	87,000
Percent.....	100	100	100	100	100	100	100
Total social-cultural expenditures.....	14,717	21,415	23,118	24,937	27,187	28,967	30,967
Percent.....	27	33	33	34	36	35	36
Enlightenment <sup>1</sup> total (included in preceding line)	6,894	8,603	9,412	10,323	11,349	12,433	13,707
Percent.....	13	13	13	14	15	15	16
1. General education and education of children and youth, and general adult education, total.....	3,354	3,979	4,435	5,002	5,608	6,208	6,730
(a) Kindergartens.....	361	525	600	697	824	1,001	1,194
(b) Children's homes and boarding schools for deaf and blind children.....	286	306	315	305	290	291	304
(c) General education schools of all types <sup>2</sup> .....	2,520	2,779	2,998	3,282	3,599	3,913	4,234
2. Cultural-educational work.....	253	318	328	333	336	327	305
3. Training cadres, total.....	2,226	2,352	2,389	2,420	2,532	2,723	2,889
(a) Higher educational institutions.....	1,021	1,141	1,183	1,167	1,208	1,286	1,363
(b) Technicums and schools for training of cadres of secondary qualification.....	592	541	523	527	532	585	634
(c) Trade and railroad schools.....	166	187	220	262	312	337	360
(d) Factory schools.....	90	68	33	24	90	91	66
(e) Technical schools.....	40	69	73	62			
(f) [Other] factory, trade, and mechanical schools, schools for mechanization of agriculture.....	305	230	277	236	282	225	350
4. Science.....	625	1,096	2,004	2,339	2,679	3,006	3,477
5. Press.....	62	88	88	74	75	68	65
6. Art and radio.....	74	129	122	105	90	92	242

<sup>1</sup> The Russian word "prosveshchenie" is translated here as "enlightenment." Soviet sources translate it as "education," leading to a conceptual error and overstatement of the total education budget.

<sup>2</sup> Individual components do not add up to subtotal.

<sup>3</sup> Data given in 1963 yearbook (p. 567) for years 1958, 1960, and 1962, respectively, are 2,890, 3,674, and 4,530.

<sup>4</sup> Estimated residual figure.

figures budgeted for

In 1960, statistical year.  
R. Council of Ministers,  
in 1962 and 1963 and data

files

1961	1962	1963
76,300	82,200	87,000
100	100	100
27,187	28,967	30,967
36	36	36
11,849	12,433	13,707
15	15	15
5,608	6,208	6,730
834	1,001	1,194
290	291	304
3,599	3,912	4,224
236	227	303
2,532	2,723	2,888
1,208	1,286	1,365
552	585	634
312	337	369
90	91	66
282	325	350
2,678	3,006	3,477
75	68	65
90	92	242

Soviet sources translate  
education budget.

y, are 2,890, 3,674, and

TABLE X-17.—Number of higher educational institutions and enrollment, U.S.S.R., 1914-16 and 1922-23 to 1963-64

School year	Number of educational institutions	Thousands of students	School year	Number of educational institutions	Thousands of students
1914-15 (current boundaries)	103	127.4	1945-46	789	720.2
1922-23	248	216.7	1946-47	805	871.7
1923-24	187	208.3	1947-48	807	963.6
1924-25	169	166.5	1948-49	823	1,032.1
1925-26	145	167.0	1949-50	864	1,132.1
1926-27	146	168.0	1950-51	880	1,247.4
1927-28	148	166.5	1951-52	887	1,356.1
1928-29	152	176.6	1952-53	837	1,441.5
1929-30	190	204.2	1953-54	819	1,562.0
1930-31	579	287.9	1954-55	794	1,730.5
1931-32	701	405.9	1955-56	765	1,867.0
1932-33	832	504.4	1956-57	767	2,001.0
1933-34	714	458.3	1957-58	763	2,066.1
1934-35	684	527.3	1958-59	766	2,178.9
1935-36	718	563.5	1959-60	753	2,267.0
1936-37	700	542.0	1960-61	739	2,391.6
1937-38	683	547.2	1961-62	731	2,640.0
1938-39	708	602.9	1962-63	738	2,944.0
1939-40	750	619.9	1963-64	742	3,261.0
1940-41	817	811.7			

TABLE X-18.—Enrollment in higher education, by type of instruction, U.S.S.R., 1940-64

School year	Thousands of students			
	Total	In day divisions	In evening divisions	In correspondence
1940-41	811.7	558.1	26.9	226.7
1945-46	720.2	525.2	14.0	191.0
1946-47	871.7	636.2	13.3	222.2
1947-48	963.6	690.4	15.2	258.0
1948-49	1,032.1	716.0	18.4	297.7
1949-50	1,132.1	753.9	22.3	355.9
1950-51	1,247.4	817.9	27.2	402.3
1951-52	1,356.1	836.1	32.1	487.9
1952-53	1,441.5	833.6	37.9	570.0
1953-54	1,602.0	994.4	48.3	559.3
1954-55	1,739.5	1,084.1	62.4	593.0
1955-56	1,867.0	1,147.0	80.9	639.1
1956-57	2,001.0	1,177.1	100.6	723.3
1957-58	2,639.1	1,193.1	127.2	778.8
1958-59	2,178.9	1,179.6	133.3	866.0
1959-60	2,267.0	1,145.8	195.8	925.4
1960-61	2,395.5	1,155.8	244.9	995.1
1961-62	2,640.4	1,204.0	307.0	1,129.0
1962-63	2,944.0	1,257.0	374.0	1,313.0
1963-64	3,261.0	1,383.0	439.0	1,439.0

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TABLE X-10.—Enrollment in higher education, by groups of specialties, U.S.S.R., selected years, 1950-64

Groups of specialties	Thousands of students				1950-61 as percent of—		1941-62 (rounded)	1952-63 (rounded)	1963-64 (rounded)
	1950-61	1955-56	1959-60	1960-61	1950-51	1955-56			
All specialties, total.....	1,247,382	1,866,994	2,266,979	2,395,543	192	128	2,639,900	2,943,700	3,260,700
Geology and prospecting for mineral resources.....	16,251	31,259	21,620	21,276	131	66	22,100	23,000	24,500
Mining of mineral resources.....	20,860	36,471	30,924	30,248	145	83	32,100	31,000	33,000
Power engineering.....	23,840	52,403	68,043	74,908	313	142	78,400	71,800	78,400
Metallurgy.....	14,708	24,713	29,323	31,900	214	127	33,400	34,200	39,300
Machine building and instrument making.....	86,332	172,531	270,116	301,684	351	175	344,300	376,400	414,000
Electro-machine building and electro-instrument making.....	14,156	36,250	69,988	91,330	(1)	252	121,600	175,100	218,500
Radiotechnics and communication.....	15,039	39,795	65,025	78,228	(2)	197	80,000	115,700	136,400
Chemical technology.....	23,996	37,610	47,290	55,194	235	149	60,800	69,200	78,200
Timber engineering and technology of wood, cellulose, and paper.....	8,650	20,409	22,577	22,853	264	112	24,300	25,700	26,200
Technology of food products.....	10,040	18,165	27,195	31,349	312	173	36,200	41,300	47,000
Technology of consumer goods.....	9,464	20,144	26,645	28,821	305	145	32,000	35,000	38,200
Construction.....	37,092	93,292	135,116	147,024	390	158	164,400	180,800	196,700
Geodesy and cartography.....	2,793	5,597	5,354	5,870	210	107	6,500	6,700	7,000
Hydrology and meteorology.....	2,648	4,123	4,583	5,158	151	125	5,500	5,900	6,200
Agriculture and forestry.....	107,682	191,786	254,168	226,088	219	123	233,300	273,700	295,600
Transport (exploitation).....	29,741	36,628	58,319	65,617	276	179	73,500	81,700	90,400
Economics.....	72,591	131,461	198,413	217,674	300	169	248,900	277,300	316,800
Law.....	45,343	38,803	38,800	40,301	80	104	43,400	46,600	50,200
Health and physical culture.....	113,300	159,711	156,249	189,161	167	118	197,000	206,300	215,800
Specialties in universities.....	87,432	120,668	176,962	186,853	214	148	200,100	216,400	242,800
Specialties in pedagogical and library institutes.....	496,253	676,278	512,515	512,803	103	89	552,000	624,400	687,700
Art.....	14,362	13,694	17,224	19,875	138	143	23,000	27,000	28,400

16 times.  
25 times.

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TABLE X-20.—Persons with higher and secondary (complete and incomplete) education, U.S.S.R., selected years, 1959 and 1964

[In millions]

	1959	1964
Persons with education:		
Complete higher education.....	3.8	5.3
Uncompleted higher education.....	1.7	2.2
Complete secondary specialized education in technicums and comparable institutions.....	7.9	10.1
Complete secondary general education.....	9.9	11.5
Incomplete secondary education (those who have completed the 7-year school as well as those who have not completed secondary education, i.e. more than the 7-year school).....	25.4	43.3
Total of those with higher and secondary education (complete and incomplete).....	58.7	72.4

TABLE X-21.—Persons with higher and secondary education (complete and incomplete) per 1,000 inhabitants, U.S.S.R., selected years, 1939, 1959, and 1964

	Per 1,000 of total number of inhabitants			Per 1,000 of all working inhabitants		
	1939	1959	At the beginning of 1964	1939	1959	At the beginning of 1964
Persons with education:						
Completed higher education.....	6	18	24	13	33	43
Uncompleted higher, secondary, and incomplete secondary.....	77	263	296	110	400	455
Total with higher and secondary education (complete and incomplete).....	83	281	320	123	433	501

NOTE.—Until the revolution, according to the population census of 1897, illiteracy from the age of 9 and above was 76 percent. Presently the U.S.S.R. is essentially a completely literate country.

At the beginning of 1964, 32 percent of the total population possessed a higher and secondary education (complete and incomplete); 50 percent of the working population had higher and secondary (complete and incomplete) education. Of that number, about 44 percent of the workers were included; 28 percent of the collective farmers were included; and 92 percent of the specialists and salaried employees were included.

TABLE X-22.—Women students as percent of total enrollment in higher education, by main areas, U.S.S.R., selected years, 1927-64

Main area	1927-28	1940-41	1945-46	1950-51	1955-56	1960-61	1961-62	1962-63	1963-64
Number of women students (in thousands).....	47	471	502	661	971	1,042	1,109	1,236	43
Women as percent of total enrollment.....	28	58	77	53	52	43	42	42	43
Women as percent of total students in:									
Industry, construction, transport, and communications.....	13	40	60	30	35	30	28	28	29
Agriculture.....	17	45	79	39	39	27	26	25	25
Economics and law.....	21	64	77	57	67	49	—	—	—
Health, physical culture, and sport.....	52	74	90	65	69	56	55	54	53
Education, art, and cinematography.....	49	66	84	71	71	63	62	62	63



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TABLE X-23.—Admissions to higher educational institutions, by type of instruction, U.S.S.R.: 1940-41, and 1945-46 to 1963-64

Year	Thousands of students			
	Total	Day division	Evening division	Correspondence instruction
1940-41	263.4	154.9	4.8	101.9
1945-46	255.7	171.6	4.9	109.2
1946-47	327.2	201.6	6.4	121.2
1947-48	281.1	169.5	6.7	85.0
1948-49	291.8	167.2	6.4	98.2
1949-50	324.3	203.3	6.9	114.1
1950-51	349.1	228.4	9.1	111.6
1951-52	374.4	245.2	10.8	118.9
1952-53	387.3	249.0	11.8	126.5
1953-54	430.8	265.1	16.6	149.1
1954-55	469.0	276.2	22.9	169.9
1955-56	461.4	257.2	28.4	175.8
1956-57	458.7	231.2	32.6	194.9
1957-58	438.3	219.7	34.7	183.9
1958-59	455.9	215.5	42.2	198.2
1959-60	511.7	227.1	63.5	221.1
1960-61	593.1	257.9	77.0	258.2
1961-62	669.9	279.4	93.1	294.4
1962-63	727.5	312.1	102.3	313.1
1963-64	772.4	339.0	108.2	325.2

TABLE X-24.—Number and percent of admissions to higher educational institutions by branch group of institutions, U.S.S.R., selected years, 1940-64

(Admissions in thousands)

Branch group	1940-41	1945-46	1950-51	1955-56	1959-60	1960-61	1961-62	1962-63	1963-64
Total admissions	263.4	255.7	349.1	461.4	511.7	593.1	669.9	727.5	772.4
Industry and construction	45.4	52.5	74.0	144.8	165.6	225.4	245.9	270.8	287.1
Transport and communications	8.3	9.5	12.0	29.8	32.2	34.1	37.6	40.0	42.2
Agriculture	11.9	17.9	28.5	51.1	57.8	62.7	71.9	81.3	86.0
Economics and law	13.6	20.3	25.5	28.5	40.1	43.9	50.7	47.3	50.0
Health, physical culture, and sport	23.0	26.7	23.7	32.3	33.2	36.8	38.9	40.8	43.0
Education	159.0	155.0	182.6	172.0	159.0	185.1	216.0	241.0	258.2
Art and cinematography	2.2	3.8	2.8	2.9	4.3	5.3	6.0	6.3	6.6

TABLE X-25.—Number and percent of graduations of specialists from higher educational institutions, by branch group, U.S.S.R., selected years, 1940-63

(Graduations in thousands)

Branch group	1940	1945	1950	1955	1959	1960	1961	1962	1963
Total graduations	126.1	84.6	176.9	245.8	338.0	343.3	325.5	316.6	3
Industry and construction	24.2	8.5	30.0	56.4	92.3	95.2	97.1	94.7	1
Transport and communications	5.9	1.6	6.1	9.5	16.3	16.1	17.0	15.9	
Agriculture	10.3	2.9	12.7	24.1	34.5	34.7	31.9	29.6	
Economics and law	5.7	2.4	11.4	15.6	25.0	25.0	24.7	24.1	
Health, physical culture, and sport	17.4	6.0	20.0	16.9	29.5	30.7	30.6	30.3	
Education	61.6	32.0	94.1	120.1	136.0	139.1	121.8	113.2	1
Art and cinematography	1.0	.6	2.6	2.6	2.4	2.5	2.3	2.6	

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TABLE X-26.—Graduations of specialists from higher educational institutions by groups of specialties, U.S.S.R., selected years, 1950-63

Group of specialties	Number of specialties				1960 as percent of—		1961	1962	1963
	1950	1955	1959	1960	1950	1955			
Total.....	170,900	245,646	337,969	343,200	193	129	325,500	316,600	331,700
Geology and prospecting for mineral resources.....	1,700	2,976	5,351	3,900	226	98	2,500	2,200	2,400
Mining of mineral resources.....	1,400	5,200	6,230	5,200	356	99	4,600	4,000	3,600
Power engineering.....	2,400	4,937	8,441	8,400	354	170	8,400	7,300	6,300
Metallurgy.....	1,400	2,656	4,005	2,000	274	146	2,900	2,800	2,800
Machine building and instrument making.....	9,100	15,736	28,349	30,600	334	193	32,400	34,100	35,600
Electro-machine building and electro-instrument making.....	1,400	2,681	6,833	8,100	(1)	273	8,500	11,000	14,300
Radiotechnics and communications.....	1,400	2,950	6,074	6,300	441	214	7,200	8,100	9,400
Chemical technology.....	2,600	4,934	5,404	5,700	220	115	6,600	6,000	6,600
Timber engineering and technology of wood, cellulose, and paper.....	700	1,865	3,497	3,700	(2)	198	2,100	2,700	2,700
Technology of food products.....	2,300	1,878	3,094	3,500	148	181	3,600	3,400	3,700
Technology of consumer goods.....	1,200	1,669	3,068	3,100	251	186	3,300	3,300	3,300
Construction.....	4,900	9,440	17,335	17,700	364	188	17,900	17,800	17,300
Geodesy and cartography.....	800	840	466	600	208	113	800	700	700
Hydrology and meteorology.....	400	628	667	700	176	106	700	700	700
Agriculture and forestry.....	12,900	24,563	33,908	34,500	267	140	31,500	30,600	30,300
Transport (exploitation).....	3,100	4,236	6,373	6,600	216	156	6,900	6,600	7,500
Economics.....	10,100	16,136	30,718	30,700	301	188	31,700	30,300	30,500
Law.....	5,700	8,128	6,363	6,000	107	74	5,600	5,100	6,100
Health and physical culture.....	20,700	16,943	29,803	30,600	144	177	30,800	30,600	31,000
Specialties in universities.....	12,300	15,560	30,200	29,900	242	192	28,400	25,900	24,500
Specialties in pedagogical and library institutes.....	78,500	93,249	99,656	101,000	129	103	84,800	79,100	86,500
Art.....	2,400	2,491	2,842	2,300	106	101	2,600	2,800	2,100

16 times.

18 times.

of instruction,

Correspondence instruction

101.9
109.2
121.2
84.9
96.2
114.1
111.6
118.9
126.5
149.1
169.9
175.8
194.9
183.9
198.2
221.1
258.2
294.4
313.1
332.2

Higher educational institutions 1940-64

1961-62	1962-63	1963-64
777.5	772.4	
270.8	287.3	
40.0	42.5	
81.3	86.6	
47.3	50.2	
40.6	43.3	
241.0	255.7	
6.3	6.9	

Higher educational institutions 1940-63

1961	1962	1963
25.5	316.6	331.7
97.1	99.7	104.4
17.0	15.9	16.7
31.8	30.8	31.4
24.7	24.1	24.4
30.6	30.3	31.8
121.8	113.2	119.9
2.5	2.6	3.0

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TABLE X-27.—Enrollments of aspirants (graduate students), by type of instruction, U.S.S.R., selected years, 1940-63

Type of instruction	Number of aspirants				1960 as percent (or multiple of)—			1961	1962	1963
	1940	1950	1955	1960	1940	1950	1955			
Total.....	16,563	21,995	29,862	36,754	218	168	128	47,660	61,809	72,103
In higher educational institutions.....	13,169	12,487	16,774	20,409	156	163	122	27,066	36,324	43,297
Training with interruption from production (full time).....	11,506	11,199	13,212	13,463	177	120	102	17,867	23,130	27,683
Training without interruption from production (part time).....	1,663	1,288	3,562	6,946	(1)	(7)	193	9,600	13,204	15,714
In scientific organizations.....	3,694	9,418	12,668	16,348	(1)	174	130	20,494	25,475	29,506
Training with interruption from production (full time).....	2,919	6,944	8,145	9,815	(1)	137	117	11,308	13,664	15,312
Training without interruption from production (part time).....	775	2,474	4,443	6,533	(1)	276	154	9,186	11,891	14,496

1 4.2 times.

2 5.4 times.

3 4.4 times.

4 2.3 times.

5 8.8 times.

TABLE X-28.—Number of graduations of aspirants (graduate students), by type of instruction, U.S.S.R., selected years, 1940-63

Years	Total	Number of graduations by type of instruction			
		In higher educational institutions		In scientific organizations	
		With interruption from production	Without interruption from production	With interruption from production	Without interruption from production
1940.....	1,078	1,411	61	454	52
1945.....	1,396	1,092	108	126	37
1946-50.....	15,295	10,087	723	4,767	708
1951-55.....	21,475	18,128	1,371	9,857	2,089
1956.....	8,453	4,805	496	2,406	744
1957.....	8,250	4,284	653	2,823	786
1958.....	6,862	3,119	707	2,053	923
1959.....	5,693	2,585	745	1,504	779
1960.....	4,517	2,407	613	1,718	779
1961.....	6,921	3,145	650	2,592	864
1962.....	8,515	3,535	886	2,659	1,103
1963.....	11,660	5,035	1,819	3,210	1,566

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by type of instruction,

	1961	1962	1963
1	19,180	11,891	14,496
2	11,808	13,884	13,312
3	20,494	23,473	29,806
4	9,090	13,204	15,714
5	17,867	23,130	27,683
6	27,066	36,334	43,207
7	47,660	61,808	71,103
8	19,001	21,296	24,496

students, by type of

63

by type of instruction

In scientific  
organizations

	With interruption from production	Without interruption from production
1	434	52
2	129	37
3	4,797	730
4	9,897	2,086
5	2,406	744
6	2,523	784
7	6,053	921
8	1,944	779
9	1,718	779
10	2,202	944
11	2,694	1,103
12	3,210	1,496

TABLE X-29.—Enrollment of aspirants (graduate students) by branches of study; U.S.S.R., 1950, 1960-63 (at end of year)

Branch of study	1950		1960		1960 as percent (or multiple) of 1950		1961	1962		1963	
	Number of aspirants	Number in higher educational institutions	Number of aspirants	Number in higher educational institutions	Number of aspirants	Number in higher educational institutions	Number of aspirants	Number of aspirants	Percent of total	Number of aspirants	Percent of total
Total.....	21,905	12,487	31,754	20,406	168	163	47,800	61,809	100	71,103	100
Physic-mathematics.....	672	618	3,435	2,728	(1)	(2)	4,887	6,345	10.3	7,544	10.3
Chemistry.....	1,319	697	2,402	1,296	182	194	3,091	3,590	3.8	4,064	5.0
Biology.....	1,247	611	1,877	732	151	120	2,396	3,821	6.2	4,604	6.2
Geology-minerology.....	503	233	1,313	533	261	229	1,630	2,273	3.7	2,509	3.4
Technical.....	3,809	2,854	13,939	8,720	240	235	17,630	22,433	38.3	27,609	37.0
Agriculture and veterinary.....	2,165	835	2,877	1,077	131	129	3,953	4,799	7.7	5,948	8.1
History and philosophy.....	2,607	1,745	1,728	1,184	66	68	2,194	3,020	4.9	3,623	5.0
Economics.....	1,399	1,014	2,776	1,661	203	161	3,504	4,627	7.5	5,465	7.5
Philology.....	1,950	1,457	1,471	1,007	74	73	1,830	2,453	4.0	2,539	3.5
Geography.....	328	190	492	254	123	134	505	731	1.2	759	1.0
Law.....	748	489	402	280	54	57	497	707	1.1	742	1.0
Pedagogy.....	862	568	956	691	111	122	1,291	1,832	2.9	1,816	2.5
Medicine and pharmacy.....	1,388	862	2,885	1,846	167	214	3,411	4,057	6.5	4,733	6.5
Art.....	459	290	448	314	98	108	598	785	1.3	863	1.2
Architecture.....	154	54	148	25	96	40	174	253	0.6	383	0.5

<sup>1</sup> 3.6 times.<sup>2</sup> 4.4 times.

TABLE X-30.—*The number of scientific workers, U.S.S.R., selected years, 1950, 1958, and 1960-63*

(At the end of the year)

	1950	1958	1960	1962	1963
Total number of scientific workers (thousands).....	162.5	294.0	354.2	524.5	566.0
In scientific institutions.....	70.3	141.0	200.1	290.0	325.8
In higher educational institutions.....	60.8	135.7	146.9	179.5	190.5

TABLE X-31.—*The composition of scientific workers, according to degrees and rank (or title), U.S.S.R., selected years, 1950, 1958 and 1960-63*

(At the end of the year)

	1950	1958	1960	1962	1963
Total number of scientific workers (thousands).....	162.5	294.0	354.2	524.5	566.0
Those with degrees:					
Doctors of sciences.....	5.3	10.3	10.9	11.9	12.7
Candidates of sciences.....	45.5	90.0	98.3	105.7	115.2
Those with academic rank:					
Academicians, corresponding members, professors.....	5.9	9.6	9.9	11.0	11.4
Docents.....	21.8	32.7	36.2	40.6	42.9
Senior scientific collaborators.....	11.4	17.2	20.3	22.8	23.5
Junior scientific collaborators and assistants.....	19.6	22.6	24.7	45.0	47.9

TABLE X-32.—*Distribution of scientific workers by branches of specialization, U.S.S.R., 1963*

(At the end of 1963)

	Number of scientific workers	The number with academic degrees	
		Doctors of Sciences	Candidates of Sciences
Total.....	563,958	12,744	115,240
Type of specialty:			
Physico-mathematics.....	54,896	1,331	9,566
Chemistry.....	29,810	771	6,202
Biology.....	23,854	1,464	9,296
Geology-mineralogy.....	15,134	882	3,696
Technical sciences.....	245,441	2,618	29,515
Agriculture and veterinary science.....	27,093	940	8,467
History and philosophy.....	24,592	693	9,167
Economics.....	24,364	368	6,220
Philology.....	32,606	390	6,007
Geography.....	8,428	312	1,791
Jurisprudence.....	2,950	123	1,480
Pedagogy.....	20,013	100	2,724
Medicine and pharmacy.....	34,556	2,904	16,239
Art.....	7,922	73	732
Architecture.....	1,803	43	1,130
Other.....	18,598	106	2,776

TABLE X-33.—*The composition of women among scientific workers, U.S.S.R., selected years, 1950, 1958, and 1960-63*

(At the end of the year)

	1950	1958	1960	1962	1963
The number of women scientific workers (thousands).....	59.0	101.4	128.7	177.7	204.8
Those with academic rank.....	16.6	23.7	26.3	33.0	41.4
Academicians, corresponding members, professors.....	5.5	7.7	7.7	9.9	9.9
Docents.....	3.2	5.5	6.2	7.3	8.0
Senior scientific collaborators.....	3.3	5.0	5.8	7.1	7.5
Junior scientific collaborators and assistants.....	9.4	12.5	13.0	22.7	24.9

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U.S.S.R.

lected years, 1950,

	1902	1903
1.3	824.5	860.0
1.1	590.0	550.0
1.9	179.5	200.0

to degrees and rank  
1900-63

	1902	1903
1.3	824.5	860.0
1.1	590.0	550.0
1.9	179.5	200.0
1.0	11.0	11.4
1.2	40.6	42.0
1.3	22.8	28.6
1.7	45.0	47.9

s of specialisation,

The number with  
academic degrees

Doctors of Sciences	Candidates of Sciences
12,744	115,240
1,321	9,466
771	6,302
1,489	9,306
682	3,896
2,618	29,815
940	3,407
673	9,767
265	6,230
390	6,007
312	1,791
128	1,480
109	2,724
2,006	16,289
78	732
43	530
106	2,778

workers, U.S.S.R.,

1900	1902	1903
128.7	177.7	204.8
24.3	28.0	41.4
7.7	9.0	9.0
6.2	7.3	8.0
8.8	7.1	7.6
12.6	22.7	24.9

## CHAPTER XI

### URBAN FACILITIES AND HOUSING

At the beginning of 1964 per capita living space in the Soviet Union amounted to 6.18 square meters, i.e., 68.7 percent of the official "hygienic norm" of 9 square meters. At least half of all urban families continue to live in apartments in which they are required to share in the use of the kitchen as well as the other household facilities.

The basic reason for the continued condition of shortage of dwelling space is the wholly inadequate level of investment in new housing. In addition, even the modest official appropriations for apartment building of the past have been systematically underfulfilled.

On the whole, the daily needs of the Soviet city dweller for basic services are met to a limited extent. The urban transportation systems are inadequate in terms of facilities and operate rather unsatisfactorily. There are not nearly enough laundries. There is not enough electricity for home use, and a sizable proportion of the city streets remain unpaved.

Restaurants, cafeterias, and other eating places are not numerous enough and are generally known to provide unsatisfactory service. Shops and establishments providing such services as shoe repair, cleaning, and mending clothes and household articles, can be found in large cities only, and even then are scarce in number and, as a rule, poorly equipped to cope efficiently with their unusually heavy workload.

TABLE XI-1.—Population growth of 7 Soviet cities following approval of resolution to prohibit building of new enterprises

Cities	Population (in thousands)		Increase over 1931 and 1939		
	Year prohibition was announced		Jan. 1, 1953, estimate	Number (thousands)	Percent
	1931	1939			
Moscow.....	2,600	.....	4,254	2,654	119.6
Leningrad.....	2,228	.....	3,552	1,324	59.4
Kiev.....	.....	847	1,248	401	47.3
Khar'kov.....	.....	833	1,006	173	20.8
Kharkov-na-Donu.....	.....	810	949	139	17.0
Gorky.....	.....	644	1,042	398	61.8
Sverdlovsk.....	.....	622	880	258	41.4

Sources: L. M. Kaganovich, *Za sotsialisticheskuyu rekonstruktsiyu Moskvy i gorodov SSSR (For Socialist Reconstruction of Moscow and the Cities of the U.S.S.R.)*, Moscow-Leningrad, 1951, p. 69; *Narodnoye khozyaystvo SSSR v 1963 godu, Statisticheskii Etchegodnik (National Economy of the U.S.S.R. in 1963, Statistical Yearbook)*, Moscow, 1963, p. 25.



TABLE XI-2.—Actual city population as planned for 1975 and as reported for 1968

Cities	Planned population in 1975	Actual population in the beginning of 1968
Gorky.....	840,000	1,042,000
Tashkent.....	970,000	1,029,000
Novosibirsk.....	850,000	980,000
Kuybyshev.....	700,000	801,000
Minsk.....	480,000	644,000

Sources: *Ekonomika Stroitelstva* (Economics of Construction), No. 3, 1960, p. 20; *Narodnoye Khozyaystvo SSSR v 1962 godu, Statisticheskiy Ezhegodnik* (National Economy of the U.S.S.R. in 1962, Statistical Yearbook), Moscow, 1963, p. 28.

TABLE XI-3.—Capital investment in the national economy of the U.S.S.R. and in the public housing sector, 1918-64

[Million rubles in comparable prices. For 1961-64 in billion new rubles in current prices]

Period	Total investment in national economy	Investment in housing construction	Percentage
1918-28 (without 4th quarter of 1928).....	1,674	271	22.2
1st 5-year plan (1929-32).....	6,716	788	11.7
2d 5-year plan (1933-37).....	15,170	1,851	12.2
3 1/2 years of 3d 5-year plan.....	15,101	1,907	12.6
From July 1, 1941, to Jan. 1, 1946.....	14,548	1,128	7.8
4th 5-year plan (1946-50).....	24,675	4,409	17.9
5th 5-year plan (1951-55).....	67,167	10,444	15.6
1956-60.....	128,416	22,794	17.8
1961 (plan).....	29.5	4.8	16.3
1962 (plan).....	31.0	5.1	16.4
1963 (plan).....	33.5	5.2	15.5
1964 (plan).....	36.5	5.4	14.8

<sup>1</sup> For housing construction in 1964 and 1965 was allocated 8,800,000,000 rubles.

Sources: *Narodnoye Khozyaystvo S.S.S.R. v 1960 godu, Statisticheskiy Ezhegodnik* (National Economy of the U.S.S.R. in 1960, Statistical Yearbook), Moscow, 1961, pp. 594-595; *O gosudarstvennom Byudzhet SSSR na 1961 god i ob ispolnenii gosudarstvennogo Byudzheta S.S.S.R. za 1959 god* (U.S.S.R. State Budget for 1961 and the Fulfillment of the State Budget in 1959), Moscow, 1961, pp. 16, 25; *Pravda*, Dec. 7, 1961, pp. 4, 6, Dec. 11, 1962, p. 3-6, Dec. 17, 1963, p. 5, 6.

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